CHAPTER I

INTRODUCTION TO TACTICAL CONTROL MEASURES

A. Introduction. Tactical control measures are important to all of us no matter what our particular military specialty may be. As military professionals in ground combat, combat service support, or aviation, our ability to understand this tactical "shorthand" is a vital component of our warfighting skills. Without a thorough understanding of the symbology associated with tactical control measures it is impossible to understand even the most simple operation orders. A failure to understand symbology renders a leader tactically illiterate.

B. Purpose. The purpose of this text is to give you the basics of tactical control measures. When you have completed this programmed text you will have a grasp of some of the most common and basic tactical control measures. However, there are several areas that could not be practically addressed without making this text the size of the Manhattan telephone book. For a more detailed treatment of tactical control measures, one should study FM 101-5-1/MCRP 5-2A, Operational Terms and Graphics. The principal references used in this text are as follows:

Joint Pub 1-02, Department of Defense Dictionary of Military and Associated Terms

FM 101-5-1/MCRP 5-2A, Operational Terms and Graphics

CHAPTER II

UNIT SYMBOLS

A. Units, Installations, and Activities
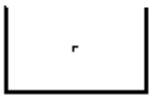
    1. Basic Symbols
    2. Use of Colors
    3. Unit Location
    4. Precise Location

B. Use of Fields

    1. Role Indicator
    2. Size Indicator
    3. Unique and Higher Formation Designation
    4. Addressing Number
    5. Reinforcements and Detachments
    6. Special Size Indicator
    7. Mobility Indicator
    8. Weapons Symbols
    9. Vehicles

LEARNING ACTIVITY II-A-1

II. Unit Symbols

   A. Units, Installations, and Activities

      1. Basic Symbols. Geometric figures form the basic symbols
which represent units, installations, and activities.

	Friendly Ground Units	Friendly Sea/Air	Unknown Sea/Air	Neutral	Enemy Units
Surface					
Subsurface					
In-flight					

   A symbol is composed of three components: a frame (geometric
border), fill, and icon. Frames are geometric shapes used to
display affiliation. Affiliation refers to whether the warfighting
object being represented is a threat. The basic affiliation
categories are friendly, unknown, neutral, and enemy. The unknown
frame shape is normally used only for aircraft or ships. The frame
shape for suspected friendly, enemy, or neutral is used for ground
units not positively identified.

   Note: In earlier versions of FM 101-5-1 enemy units were
depicted in red or by using DOUBLE LINES using the friendly frame.
At AWS you will see the enemy depicted using both methods. The new
graphics were developed to make them computer friendly.
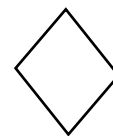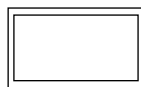
LEARNING ACTIVITY II-A-2

    2. Use of Colors

        Colors may be used on situation and planning maps. Since multicolor reproduction is often impractical, overlays are normally reproduced in one color only, usually black.

        Colors in conjunction with military symbols denote the following:

      (1) BLUE or BLACK. Friendly units and activities, all friendly graphic control measures.

      (2) RED. Enemy units or activities, all enemy graphic control measures. If red is not available graphics will be drawn in black with a double line or the abbreviation "EN" placed on the graphics in at least two places to avoid confusion.

      (3) YELLOW. Areas of nuclear, chemical, or biological contamination. Unknown unit symbols.

      (4) GREEN. Reinforcing obstacles and neutral unit symbols.

      (5) OTHER. Other colors which may be used will be explained in the legend.

LEARNING ACTIVITY II-A-3

    3. Unit Location

       The center of mass of the symbol indicates the general
vicinity of the center of mass of a unit. A unit located in and
around grid 473504 is plotted on a map as follows:

51

50

47   48
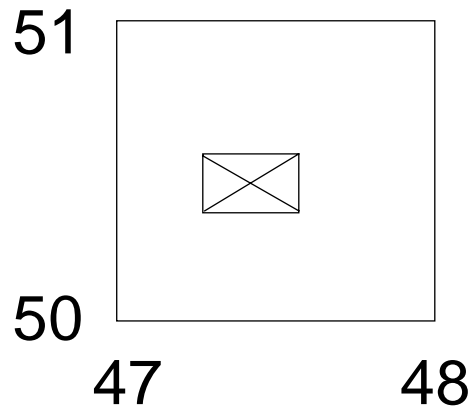
       A solid line symbol represents the PRESENT location of a
unit, installation, or activity, whereas a broken line symbol
represents the FUTURE or PROJECTED locations.

       Present Position
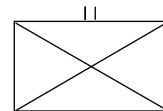
       Future/Proposed Position
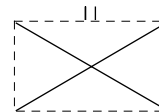
When depicting future or projected locations, only the outer portion
of the basic symbol is shown with a broken line. The staff of a
command post symbol is also depicted with a broken line. The branch
or duty performed symbol, unit designation, and size symbol are
drawn with solid lines.

LEARNING ACTIVITY II-A-4

        4. Precise Locations. The following methods indicate precise location:

Basic symbols, other than headquarters, may be placed on a staff which is extended or bent as required. The end of the staff indicates the precise location.

Since the headquarters symbol already indicates a staff, this staff is extended or bent as required. The end of the staff indicates the exact location of the headquarters.
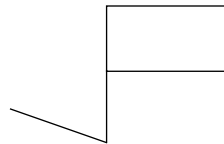
If several headquarters are at one location, more than one symbol may be placed on a single staff.
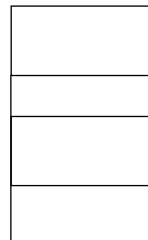
If a group of units or installations other than headquarters is at one location, the grouping of symbols may be enclosed by a bracket and the exact location indicated with a line.
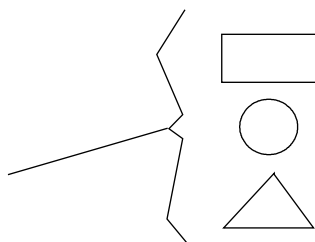
PRACTICE EXERCISE II-1

1. A unit is represented by

2. A headquarters is represented by

3. Enemy units are normally depicted in the color _____.

4. Reinforcing obstacles are depicted in the color _____.

5. A solid line frame represents the _____ location of the unit.

6. Future or proposed locations are depicted by using a _____ for the outer portion of the frame.

7. General location is indicated by the location of the _____ _____ of the frame. Precise location is indicated by adding a _____ to the frame.

8. An enemy unit is represented by

9. An enemy headquarters is represented by

10. A neutral unit is represented using the color _____ using a _____ frame.

<u>DISCUSSION II-1</u>

1. A unit is represented by

2. A headquarters is represented by

3. Enemy units are normally depicted in the color **<u>RED</u>**.

4. Reinforcing obstacles are depicted in the color **<u>GREEN</u>**.

5. A solid line frame represents the **<u>PRESENT</u>** location of the unit.

6. Future or proposed locations are depicted by using a **<u>BROKEN LINE</u>** for the outer portion of the frame.

7. General location is indicated by the location of the **<u>CENTER OF MASS</u>** of the frame. Precise location is indicated by adding a **<u>STAFF</u>** to the frame.

8. An enemy unit is represented by
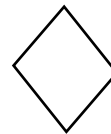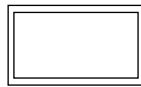
9. An enemy headquarters is represented by
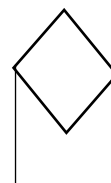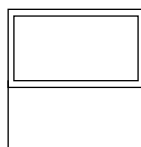
10. A neutral unit is represented using the color **<u>GREEN</u>** using a **<u>SQUARE</u>** frame.

LEARNING ACTIVITY II-B

   B. Use of Fields

      A field is a designated area around the basic symbol which is used to display a particular item of information. This information may be another symbol (such as the size indicator), words, or numbers.

      Some fields apply only to friendly forces and some only to enemy forces. Some fields apply only to units, installations, or equipment. See FM 101-5-1, CHAPTER 4, page 4-3, for a thorough description of fields. The figures below represent the Standardized Unit Labeling Fields. The position of the field in relation to the basic symbol is shown below.

     Normally, additional information needs to be included with the unit symbol and is placed in Standardized Unit Labeling Fields. The unit location is determined by the center mass of the frame or a line (staff)(without an arrowhead) from the center of the bottom of the frame to the location. Headquarters unit locations are at the bottom of the "headquarters staff" displayed as field "S."

STANDARDIZED UNIT LABELING FIELDS

9

LABELING FIELD DEFINITIONS

| FIELD	FIELD TITLE	DESCRIPTION	APPLICATION	LENGTH (CHARACTERS)
A	SYMBOL	Frame, fill and icon showing basic function of units, installations, or equipment with modifiers A1, A2 and A3.	All	
B	SIZE INDICATOR	A symbol that denotes the size of the unit or installation	Units and installations	
C	EQUIPMENT	Indicates number of items present. Installation: Size in square feet	Units and installations	10
D	TASK FORCE	A symbol placed over the size indicator to denote a task force or company team	Units	6
E	SUSPECT, ASSUMED, FRIEND, FAKER, JOKER	Question Mark "?" : suspect, assumed friend, faker. "j": Joker	All	1
F	REINFORCED OR DETACHED	Shows (+) reinforced, (-) reduced, or (+-) reinforced and reduced.	Units	3
G	STAFF COMMENTS	Free Text	All	20
H	ADDITIONAL COMMENTS	Free Text	All	20
J	EVALUATION RATING	One letter and one number (see STANAG 2022).	Enemy Only	2
K	COMBAT EFFECTIVENESS	Effectiveness or unit displayed	Units and installations	5
L	SIGNATURE EQUIPMENT	Indicated by "!" (refers to detectable electronic signatures	Enemy Equipment only	1
M	HIGHER FORMATION	Number or title of higher echelon command (corps designated by Roman Numerals.	All	21
N	ENEMY (HOSTILE)	Indicated by letters "ENY."	Enemy equipment, lines, areas, and boundaries	3
P	IFF/SIF	Identification modes and codes	Units and Equipment	5
Q	DIRECTION OF MOVEMENT ARROW	Direction symbol is moving or will move. Nuclear, biological, chemical: Downwind direction.	All	4
R	MOBILITY INDICATOR	Pictorial representation of mobility.	Equipment Only	
S	HEADQUARTERS STAFF INDICATOR/LOCATING INDICATOR	Identifies unit symbol as a headquarters or used to indicate location or to declutter.	Units	
T	UNIQUE DESIGNATION	An alphanumeric title that uniquely identifies a particular symbol; track number. Nuclear: Friendly delivery unit (missile, satellite, aircraft, etc.)	All	21
V	TYPE OF EQUIPMENT	Identifies unique designation. Nuclear: Friendly weapons type.	Units and Equipment	24
W	DATE-TIME GROUP	Alphanumeric field for date/time (MILSTD-2500A) (DDHHMMSSZMONYY) OR "o/o" for on order.	All	15
X	ATTITUDE/DEPTH	Altitude portion of GPS. Flight level for aircraft. Depth for submerged objects. Height in feet of equipment or structure on the ground. Nuclear: Height of burst.	All	6
Y	LOCATION	Latitude and longitude; grid coordinates	All	19
Z	SPEED	Nautical miles per hour; kilometers per hour.	Units and equipment	5

LEARNING ACTIVITY II-B-1

There are four fields which must contain information. The
first of these mandatory fields is the icon showing basic function
of units, installations or equipment.

(1) BASIC FUNCTION. Type or functional ICONS are placed in
the center of the geometric FRAME at field position "A." ICONS may
be combined with one another to show an exact function or
capability.

W	C B	E/F
XY	**A**	G
V	**A**1,2,3	H/K
T	**A** TEXT	M
Z	H	P

S

Q
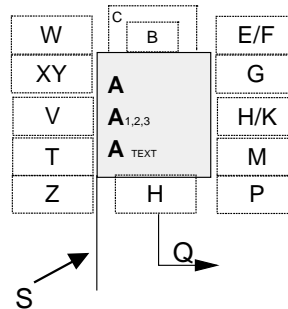
(2) UNIT ABBREVIATIONS. When no function symbol is provided,
an accepted abbreviation may be written inside the basic symbol. The
figure below shows the abbreviations used when identifying units or
marking boundaries.
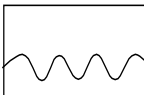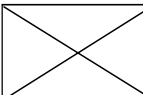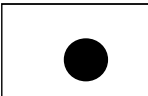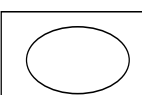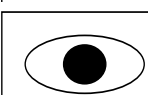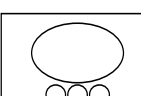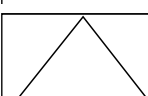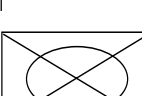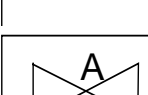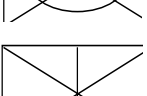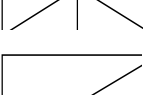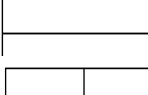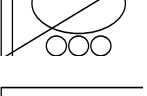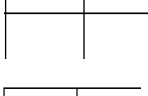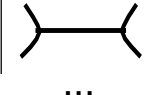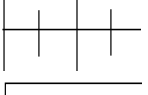
UNIT ABBREVIATIONS

LONG NAME	ABBREVIATION
AIR ASSAULT	AASLT
AIRBORNE	ABN
ARMORED CAVALRY REGIMENT	ACR
ARMORED DIVISION	AD
CAVALRY DIVISION	CAV
INFANTRY DIVISION	ID
LIGHT INFANTRY DIVISION	ID(L)
MECHANIZED BATTALION OR TF	MECH
MECHANIZED INFANTRY DIVISION	ID(M)
MOUNTAIN	MTN
SEPARATE ARMORED BRIGADE	SAB
SEPARATE INFANTRY BRIGADE	SIB
SEPARATE INFANTRY BRIGADE (LIGHT)	SIB(L)
SEPARATE INFANTRY BRIGADE (MECHANIZED)	SIB(M)
MARINE EXPEDITIONARY FORCE	MEF
MARINE EXPEDITIONARY BRIGADE	MEB
MARINE DIVISION	MARDIV
MARINE EXPEDITIONARY UNIT	MEU
MARINE AIR-GROUND TASK FORCE	MAGTF

(3) COMMONLY USED FUNCTIONAL ROLE INDICATORS

	AMPHIBIOUS		MARINE AIR-GROUND TASK FORCE (MAGTF)
	INFANTRY (BASIC)		FIELD ARTILLERY (BASIC) (TOWED)
	ARMOR/ MECHANIZED (TRACKED)		FIELD ARTILLERY (SELF-PROBELLED)
	ARMOR/ MECHANIZED (WHEELED)		ANTIARMOR
	ASSAULT AMPHIBIOUS VEHICLE (AAV)/ AMPHIBIOUS TANK		AIR DEFENSE
	ENGINEER (BASIC)		AVIATION (BASIC) / ROTARY WING (BASIC)
	MECHANIZED INFANTRY		FIXED WING
	AMPHIBIOUS INFANTRY/ USMC LANDING TEAM		ATTACK HELICOPTER (BASIC OR LIGHT) (AH-1)
	MOTORIZED INFANTRY		ELECTRONIC WARFARE (BASIC)
	RECONNAISSANCE (BASIC), CAVALRY OR SCOUTS		SIGNAL/ COMMUNICATIONS (BASIC)
	ARMORED CAVALRY, RECONNAISSANCE, OR SCOUTS		SUPPLY (BASIC)
	ARMORED (WHEELED) RECONNAISSANCE, OR SCOUTS/ USMC LIGHT ARMORED RECON (LAR)		MEDICAL (BASIC)
	MAINTENANCE		MEDICAL TREATMENT FACILITY (MTF) (BAS)
	FORCE SERVICE SUPPORT GROUP (FSSG)		LANDING SUPPORT - SHORE PARTY
	OBSERVATION OR LISTENING POSTS		COMBAT OUTPOST

PRACTICE EXERCISE II-2

1. The _____ is placed at the center of the basic
geometric frame.

2. Depict the following organizations:

a. Infantry Unit

b. Reconnaissance Observation Post

c. Antiarmor Unit

d. Medical Installation

e. Air Defense Unit

f. Tank Unit Headquarters

g. Electronic Warfare Unit

h. Enemy Infantry Unit

i. Enemy Mechanized Infantry unit

j. Enemy Motorized Infantry

DISCUSSION II-2

1. The FUNCTION INDICATOR is placed at the center of the basic geometric symbol.

2. Depict the following organizations:
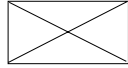
a. Infantry Unit

b. Reconnaissance Observation Post
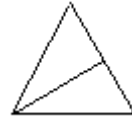
c. Antiarmor Unit

d. Medical Unit (Aid Station)

e. Air Defense Unit
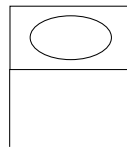
f. Tank Unit Headquarters

EW

g. Electronic Warfare Unit

h. Enemy Infantry Unit

i. Enemy Mechanized Infantry unit
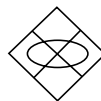
j. Enemy Motorized Infantry
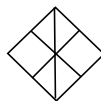
2. <u>Size Indicator</u>. The second of the mandatory fields is the SIZE INDICATOR. The size of units and installations is shown by placing the appropriate size indicator directly above the basic symbol in field position B.

W	C B	E/F
XY	A	G
V	A$_{1,2,3}$	H/K
T	A TEXT	M
Z	H	P

S

Q
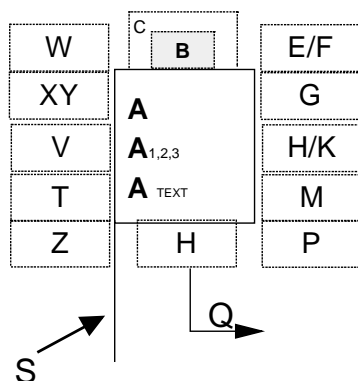
Unit Size and Installation Indicators

SIZE INDICATOR	MEANING
▬	Installation
∅	Team/Crew
•	Squad
••	Section
•••	Platoon/Detachment
I	Company/Battery/Troop
II	Battalion/Squadron
III	Regiment/Group
X	Brigade
XX	Division/Wing
XXX	Corps/MEF
XXXX	Army
XXXXX	Army Group/Front
XXXXXX	Region

Thus, with fields A and B filled, an infantry company is represented as:
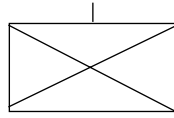
An artillery battery is:
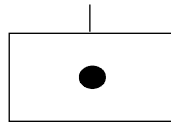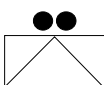
PRACTICE EXERCISE II-3
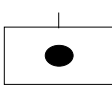
1. The _____ is placed directly above the basic symbol.

2. Depict the following organizations:

    a. Infantry Platoon

    b. Antiarmor Section

    c. Artillery Battery

    d. Enemy Tank Company

    e. AAV Battalion

    f. Mechanized Infantry Regiment

    g. Engineer Company Headquarters

DISCUSSION II-3

1. The **SIZE INDICATOR** is placed directly above the basic symbol.

2. Depict the following organizations:

a. Infantry Platoon

b. Antiarmor Section

c. Artillery Battery

d. Enemy Tank Company   OR   OR   *IN RED*

e. AAV Battalion

f. Mechanized Infantry Regiment

g. Engineer Company Headquarters

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LEARNING ACTIVITY II-B-3

      3. <u>Unique Designation and Higher Formation Designation</u>. The unique designation is the third mandatory field. The identity of the unit is located to the left of the basic symbol in field position T. The unique designation must be consistent with the size indicator. Although it is not a mandatory field, the HIGHER FORMATION field is customarily filled in order to avoid ambiguity. The higher headquarters is located to the right of the basic symbol in field position M.
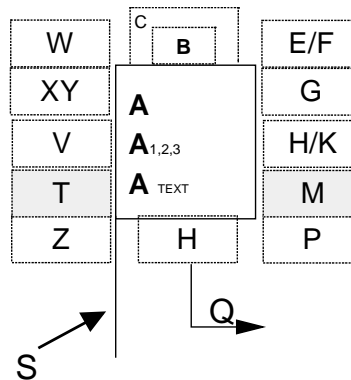
Using fields A, B, T, and M, Company G (2d Bn), 5th Marines (1st MarDiv), is represented as:
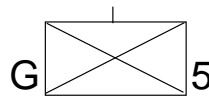
Medical Platoon (H&S Co), 2d Bn, 5th Marines (1st MarDiv), employed as a battalion aid station is represented as:

PRACTICE EXERCISE II-4

1. The unique designation is located to the _____ of the basic symbol. Although not required, it is customary to list the unit's higher formation to the _____ of the basic symbol to avoid ambiguity.

2. Depict the following organizations:

    a. Co A, 1st Marines

    b. Battery F, 12th Marines

    c. 1st Platoon, Co B, 1st Tanks

    d. Weapons Platoon, Co F, 8th Marines

    e. Note: It is customary to omit units which are understood.
For example: Co A, 1st Marines, will usually be depicted as:
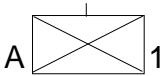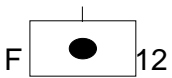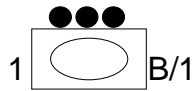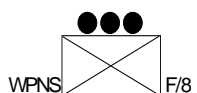
rather than

because it is understood that Co A will normally come from the 1st Battalion.

DISCUSSION II-4

1. The unique designation is located to the **LEFT** of the basic symbol. Although not required, it is customary to list the unit's higher formation to the **RIGHT** of the basic symbol to avoid ambiguity.

2. Depict the following organizations:

    a. Co A, 1st Marines

    b. Battery F, 12th Marines

    c. 1st Platoon, Co B, 1st Tanks

    d. Weapons Platoon, Co F, 8th Marines

    e. Note: It is customary to omit units which are understood. For example: Co A, 1st Marines, will usually be depicted as:
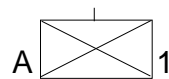
rather than
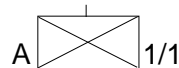
because it is understood that Co A will normally come from the 1st Battalion.

LEARNING ACTIVITY II-B-5

<u>Conditional Fields</u>. Conditional fields are fields which must contain information, when applicable.

     5. <u>Reinforcements and Detachments</u>. If a unit has reinforced or detached elements, this is indicated to the right of the basic symbol in field position F.

W	C B	E/F
XY	**A**	G
V	**A**$_{1,2,3}$	H/K
T	**A** TEXT	M
Z	H	P

S

Q
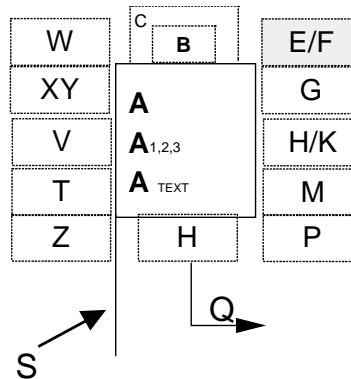
Reinforced (+)

Detached   (−)

With reinforcements and detachments (+ −)

With field F filled 1st Battalion, 7th Marines (Minus) (Reinforced); mechanized is represented as:

(- +)

1 ⊠ 7
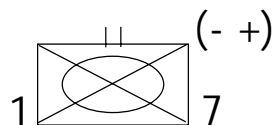
LEARNING ACTIVITY II-B-6

      6. <u>Special Size Indicator</u>. If a unit is temporarily organized, usually for a specific operation, into a task force or company team, a hood is placed over the size indicator at field position D. If a hood is used, (+) or (-) symbols are not used.
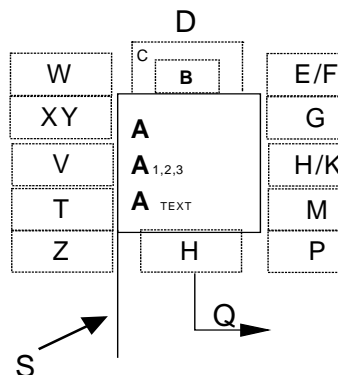
Example:

Company Team: Controlled by the tank company's command element.
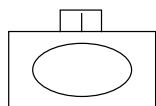
Battalion Task Force: Commanded by the infantry battalion's command element.
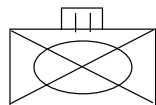
<u>BATTALION TASK FORCE</u>: As a minimum, a battalion task force must include the battalion HEADQUARTERS, one ORGANIC element, and one ATTACHED unit of comparable size of an unlike combat or combat support. An example would be an infantry battalion with at least its headquarters elements and one rifle company and one tank company.
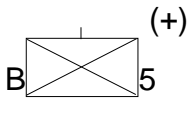
<u>COMPANY TEAM</u>: A company is referred to as a company team when it has one or more platoons of another combat arm attached. As a minimum, a company team must include either a rifle or tank company headquarters with at least one rifle or tank platoon attached.

23

PRACTICE EXERCISE II-5
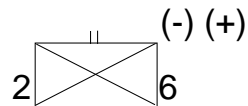
1. Reinforcements and detachments are depicted by placing a _____ for reinforcements or a _____ for detachments to the basic symbol.

2. A _____ is placed above the size indicator to indicate a _____ _____ or _____.

3. Depict the following organizations:

    a. Co B (Rein), 5th Marines

    b. 2d Bn (Rein) (Minus HMGs), 6th Marines

    c. 3d Platoon (reinforced with M60 and engineers), Co B, 3d Marines

    d. 1st Battalion, 9th Infantry(Mechanized) organized with 2 mechanized infantry companies and two tank companies.

DISCUSSION II-5
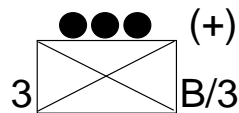
1.   Reinforcements and detachments are depicted by placing a **(+)** for reinforcements or a **(-)** for detachments to the basic symbol.

2.   A ⌐⌐ is placed above the size indicator to indicate a **TASK FORCE** or **COMPANY TEAM.**

3.   Depict the following organizations:

   a.   Co B (Rein), 5th Marines
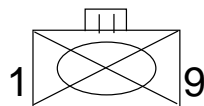
   b.   2d Bn (Rein) (Minus HMGs), 6th Marines

   c.   3d Platoon (reinforced with M240G and engineers), Co B, 3d Marines

   d.   1st Battalion, 9th Infantry(Mechanized) organized with 2 mechanized infantry companies and two tank companies.

LEARNING ACTIVITY II-B-7
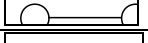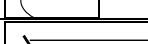
     7. **Equipment Symbols**. This learning activity describes procedures for creating composite weapon system symbols and the procedures for text labeling to provide the necessary details. Orientation of symbol frames is extremely important. All overlays should show the symbol oriented the same as the actual equipment. The "Q" field will show the orientation of moving equipment symbols.
    The type of mobility is shown beneath the basic unit or equipment symbol in field position R.

GROUND EQUIPMENT LABELING FIELDS

W	D	E/F
X/Y	**A** **A**$_{1,2,3}$	G
V		H/K
T		M
Z	R	P

Q →

EQUIPMENT LABELING FIELD DEFINITIONS

FIELD	FIELD TITLE	DESCRIPTION	APPLICATION	LENGTH (CHARACTERS)
A	SYMBOL	Frame, fill and icon showing basic function of units, installations, or equipment with modifiers A1, A2 and A3.	All	
D	EQUIPMENT	Indicates number of items present. Installation: Size in square feet	Units and installations	10
E	SUSPECT, ASSUMED, FRIEND, FAKER, JOKER	Question Mark "?" : suspect, assumed friend, faker. "j": Joker	All	1
F	REINFORCED OR DETACHED	Shows (+) reinforced, (-) reduced, or (+-) reinforced and reduced.	Units	3
G	STAFF COMMENTS	Free Text	All	20
H	ADDITIONAL COMMENTS	Free Text	All	20
J	EVALUATION RATING	One letter and one number (see STANAG 2022).	Enemy Only	2
L	SIGNATURE EQUIPMENT	Indicated by "!" (refers to detectable electronic signatures	Enemy Equipment only	1
M	HIGHER FORMATION	Number or title of higher echelon command (corps designated by Roman Numerals.	All	21
N	ENEMY (HOSTILE)	Indicated by letters "ENY."	Enemy equipment, lines, areas, and boundaries	3
P	IFF/SIF	Identification modes and codes	Units and Equipment	5
Q	DIRECTION OF MOVEMENT ARROW	Direction symbol is moving or will move. Nuclear, biological, chemical: Downwind direction.	All	4
R	MOBILITY INDICATOR	Pictorial representation of mobility.	Equipment Only	
T	UNIQUE DESIGNATION	An alphanumeric title that uniquely identifies a particular symbol; track number. Nuclear: Friendly delivery unit (missile, satellite, aircraft, etc.)	All	21
V	TYPE OF EQUIPMENT	Identifies unique designation. Nuclear: Friendly weapons type.	Units and Equipment	24
W	DATE-TIME GROUP	Alphanumeric field for date/time (MILSTD-2500A) (DDHHMMSSZMONYY) OR "o/o" for on order.	All	15
X	ATTITUDE/DEPTH	Altitude portion of GPS. Flight level for aircraft. Depth for submerged objects. Height in feet of equipment or structure on the ground. Nuclear: Height of burst.	All	6
Y	LOCATION	Latitude and longitude; grid coordinates	All	19
Z	SPEED	Nautical miles per hour; kilometers per hour.	Units and equipment	5

(a) Common Mobility Modifiers

AMPHIBIOUS	
WHEELED	
WHEELED, CROSS COUNTRY	
TRAILER OR TOWED VEHICLE	
RAILWAY	
OVER-SNOW (PRIMEMOVER)	
WHEELED AND TRACKED (HALF TRACK)	
TRACKED	
BARGE	
SLED (TOWED)	

(b) Building an Equipment Symbol. The following are example procedures for building a specific equipment symbol.

(1) Select the basic equipment symbol.

RIFLE/LIGHT AUTOMATIC
WEAPON (M16)
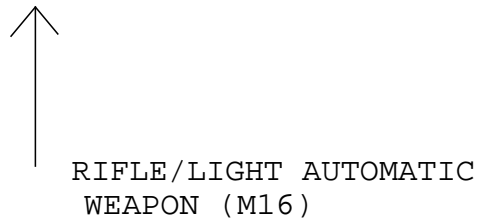
(2) Add horizontal lines to indicate the size of a weapon: zero for small, light, or short; one for medium; or two for large, heavy, or long.

MEDIUM MACHINE GUN (7.62mm)   HEAVY MACHINE GUN (.50 cal)
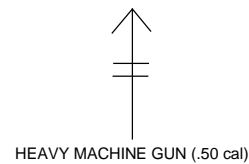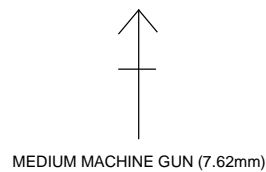
(3) Add a circle in the center for a grenade launcher.

M203   MK19
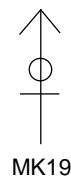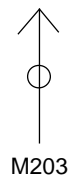
(4) If a weapon has a high trajectory, a circle is placed at the base of the shaft. If the weapon has a flat trajectory, a chevron is placed at the base of the shaft.

MEDIUM   LIGHT
MORTAR   ANTITANK GUN

28
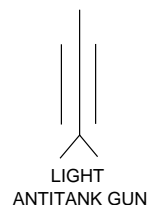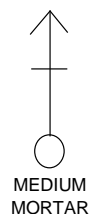
(5) If the weapon is primarily for air defense, a horizontal half circle is placed at the base of the shaft.
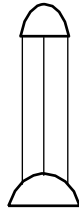
AIR DEFENSE
MISSILE

AIR DEFENSE
GUN

(6) If the weapon is a rocket launcher, a double arrowhead is placed at the head of the shaft. If the weapon is also tracked, self-propelled vehicle, a flat ellipse is placed below the weapon symbol.

ROCKET
LAUNCHER
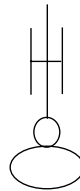
TRACKED, SELF-PROPELLED
MEDIUM HOWITZER

(7) Examples of composite weapon system symbols.
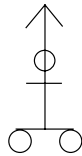
HMMWV
WITH MK19
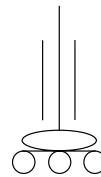
LAV WITH
25mm

TANK WITH
MINE ROLLERS
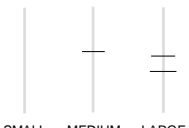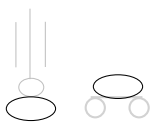
TANK WITH
MINE PLOW

LEARNING ACTIVITY II-B-8

     8. <u>Weapon and Equipment Symbols</u>. Symbols are used to indicate the type, location, and number of weapons or groups of weapons. When a symbol appears on a map or overlay, the base of the shaft indicates the location of the weapon.

  (a) Modifiers.

RIFLE OR AUTOMATIC WEAPON	
SIZE OF WEAPON	SMALL MEDIUM LARGE
ANTITANK WEAPON	
ROCKET	
DIRECT FIRE GUN	
AIR DEFENSE	
RECOILLESS RIFLE	
MISSILE	
TRACKED SELF-PROPELLED OR ARMOR-PROTECTED	

30
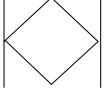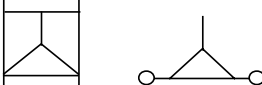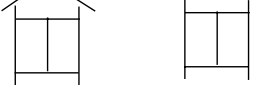
(b) Commonly used weapon symbols

WEAPON	LIGHT	MEDIUM	HEAVY
ANTITANK GUN			
ANTITANK MISSILE		JAVELIN	TOW
ANTITANK ROCKET LAUNCHER	AT-4	SMAW	
GRENADE LAUNCHER	M203	MK19	
HOWITZER	M101A1	M198	
MACHINE GUN/AUTOMATIC WEAPON	M249 SAW	M240G	.50 CAL
MORTAR	60 MM	81MM	
MULTIPLE ROCKET LAUNCHER			
SURFACE-TO-SURFACE MISSILE			
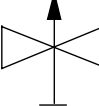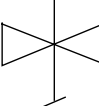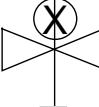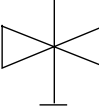
9. Vehicles. It is often necessary to depict vehicles either singularly or as amplifying information on a unit symbol.
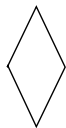
(a) Common Friendly Vehicle Symbols.

TANK			
ASSAULT AMPHIBIAN VEHICLE			
INFANTRY FIGHTING VEHICLE/ CAVALRY VEHICLE			
ARMORED PERSONNEL CARRIER			
CARGO OR PERSONNEL CARRIER			
ARMORED COMBAT EARTHMOVER (ACE)			
ARMORED VEHICLE-LAUNCHED BRIDGE (AVLB)			
HOVERCRAFT			
ARMORED VEHICLE-MOUNTED MICLIC (AVLM), TRAILER MOUNTED MICLIC (MICLIC)			
TRACTOR, FULL-TRACKED LOW-SPEED (DOZER)			
TANK W/MINE PLOW, TANK W/MINE ROLLERS			

(b) Aircraft/aerial vehicles.

CIVILIAN HELICOPTER	
ATTACK (NAVY: ASW & ASUW)	
RECONNAISSANCE	
TRANSPORT (AIR FORCE: HH-53)	
SUPPORT (SAR & C2) (NAVY: MCM)	

(C) Enemy Equipment.

ENEMY TANK	
ENEMY WHEELED INFANTRY FIGHTING VEHICLE	
ENEMY TRACKED INFANTRY FIGHTING VEHICLE	

(d) Examples of equipment symbols with labeling fields

11

151500Z
M1A1

50% FUEL

B   1
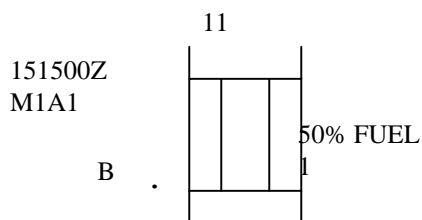
11 M1A1 TANKS
FROM B CO, 1ST TANK BATTALLION
STATIONARY WITH 50% FUEL
AT 151500Z

4

171700Z
BFV

RT RED

1

A/9

90
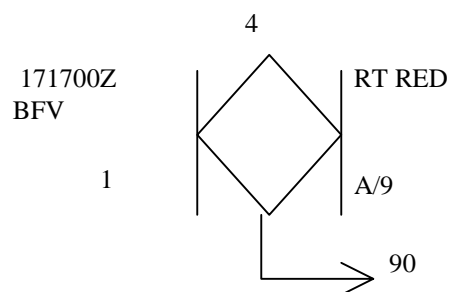
4 BFVs FROM 1st PLT, A CO 9TH IN
MOVING EAST ON ROUTE RED
AT 171700Z

18

222200Z
T72

ENY

180
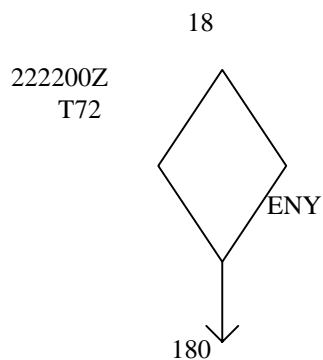
18 ENEMY T72 TANKS
MOVING SOUTH AT
222200Z

6

5 TON
B

2 EN

270
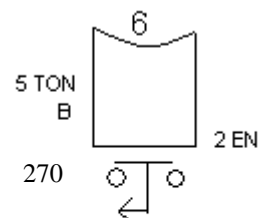
SIX 5TON TRUCKS FROM
B CO, 2 ENGR BN MOVING
WEST

PRACTICE EXERCISE II-6

1. The type of mobility a weapon has is shown _____ the basic symbol.

2. Depict the following weapons:

   a. M2 .50 cal HMG

   b. 60mm mortar

   c. Dragon antitank missile

   d. Six M1A1 Main Battle Tanks, from A Company, 1 Tank Battalion moving southwest at 121430Z with 50% Ammo.

DISCUSSION II-6

1. The type of mobility a weapon has is shown <u>below</u> the basic symbol.

2. Depict the following weapons:

    a. M2 .50 cal HMG

    b. 60mm mortar

    c. Dragon antitank missile
    d. Six M1A1 Main Battle Tanks, from A Company, 1 Tank Battalion moving southwest at 121430Z with 50% Ammo.

```
        6
121430Z ┌──┬─┬──┐
  M1A1  │  │ │  │ 50% AMMO
   A    └──┴─┴──┘ 1
           │
   240 ◄───┘
```
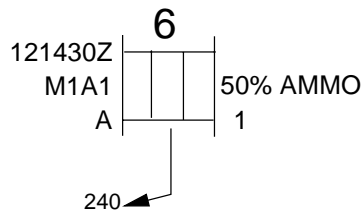
CHAPTER III

TACTICAL CONTROL MEASURES FOR OFFENSIVE OPERATIONS

A.Overview of Offensive Operations

B.Tactical Control Measures for Offensive Operations

1. Boundary Lines
2. The Objective
3. Line of Departure
4. Phase Line
5. Zone of Action
6. Assembly Area
7. Attack Position
8. Landing Zone
9. Route of March
10. Direction of Attack
11. Axis of Advance
12. Bridgehead Line
13. Limit of Advance
14. Infiltration Lane
15. Checkpoint
16. Passage Point
17. Linkup Point
18. Contact Point
19. Coordinating Point
20. Probable Line of Deployment
21. Point of Departure
22. Force Beachhead Line
23. Attack by Fire Position
24. Support by Fire Position

A. Overview of Offensive Operations

>   "Invincibility lies in the defense; the possibility of
>   victory in the attack."--Sun Tzu

Ultimate success in battle is achieved by offensive action.
Even in the defense, a commander must take every opportunity to
seize the initiative by offensive action and to carry the battle to
the enemy.

The purpose of offensive operations is to defeat the enemy.
Toward that purpose the commander undertakes offensive operations
for the following reasons:

(1) Destroy enemy forces and equipment.

(2) Deceive and divert the enemy.

(3) Deprive the enemy of resources.

(4) Gain information.

(5) Secure key terrain.

(6) Hold the enemy in position.

(7) Disrupt enemy actions or preparations.

(8) Set up future operations.

The offense is characterized by the integration of fire and
maneuver, combined and controlled to create a preponderance of force
in a decisive direction.

LEARNING ACTIVITY III-B-1

    B.   Tactical Control Measures for Offensive Operations

        1.   Boundary Lines

            a.   Definition. A line which delineates surface areas
for the purpose of facilitating coordination and deconfliction of
operations between adjacent units, formations or areas. A boundary
is a control measure used to define the right, left, rear, and
forward limits of an area of operation. It is normally drawn along
identifiable terrain features and used to delineate tactical
responsibility between adjacent units and between higher
headquarters to the rear of subordinate units. Within their
boundaries, units may maneuver within the overall plan without close
coordination with adjacent units. Direct fire may be placed across
boundaries on clearly identified enemy targets without prior
coordination, provided friendly forces are not endangered. Indirect
fires also may be used after coordination.

            b.   Description. A unit boundary is represented by a
solid black line broken to display unit size. Lateral boundaries
are lines with the size indicator placed on the boundary to show the
size and designation of the highest echelons that have the boundary
in common. If the units are of unequal size, the size indicator of
the larger unit is shown and the designation of the smaller unit is
given completely. A unit's area of responsibility extends to the
forward and rearward limits of its lateral boundaries. When used, a
rear boundary shows the size indicator of the smaller or subordinate
unit rather than the larger unit of which it is a part. Rear
boundaries normally are established only for battalions and larger.

Example:
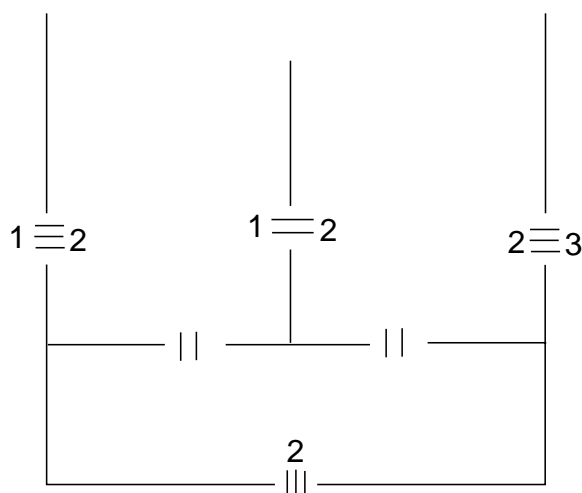
c. <u>USE OF GRAPHICS</u>. This section describes how to label various graphic control measures. Some boundary labeling can be abbreviated when the abbreviation will not cause confusion. All text labeling should be drawn so that it can be read when the bottom of the overlay is closest to the reader. Labeling written on an angle should be readable when the overlay is turned a quarter of a turn (90 degrees) clockwise (to the Left).

(1) For boundaries, size markings should be perpendicular to the boundary line.

```
                                      ┌───┐
                                      │ T │
                          ┌───┐ ┌───┐
  ──────────── N ────────│ B │
                          └───┘ └───┘
                                      │ T │
                                      └───┘
```
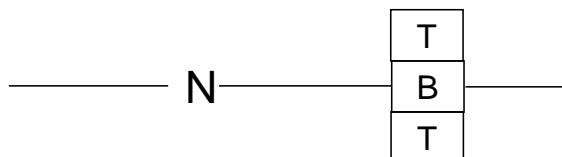
FIELD	FIELD TITLE	DESCRIPTION	APPLICATION	LENGTH
B	SIZE INDICATOR	A SYMBOL THAT DENOTES THE SIZE OF THE UNIT OR INSTALLATION	UNITS AND INSTALLATIONS	
N	ENEMY (HOSTILE)	INDICATED ENEMY BY LETTERS "ENY"	ENEMY EQUIPMENT, LINES, AREA AND BOUNDARIES	3
T	UNIQUE DESIGNATION	AN ALPHANUMERIC TITLE THAT UNIQUELY IDENTIFIES A PARTICULAR SYMBOL; TRACK NUMBER	ALL	21

(2) Most lines should be named as a phase line for easy reference during orders and radio transmissions. A phase line should be marked as "PL NAME." Other lines that have a specific purpose and are also named as phase lines should have the primary purpose such as no fire line "NFL" labeled on top of the name and at both ends of the line or as often as necessary for clarity. The phase line labeling should be in parentheses.

```
  ┌───┬───┐                    ┌───┬───┐
  │ W │ U │                    │ W │ U │
  └───┼───┤──────────────────  └───┼───┤──
      │ O │                        │ O │
      └───┘                        └───┘
```

FIELD	FIELD TITLE	DESCRIPTION	APPLICATION	LENGTH
O	CONTROL MEASURE CODE NAME	A NAME GIVEN TO A PHASE LINE AND OTHER CONTROL MEASURES FOR EASY REFERENCE AND SECURITY WHEN USING IN ORDERS AND IN ELECTROMAGNETIC TRANSMISSION. IT IS PLACED IN PARENTHESES BELOW THE ABBREVIATION OF A CONTROL MEASURE	CONTROL MEASURES	20
U	CONTROL MEASURE ABBREVIATION	AN ABBREVIATION OF A FIRE SUPPORT OR OTHER CONTROL MEASURE, SUCH AS LOA FOR LIMIT OF ADVANCE	AS NECESSARY	4
W	DATE-TIME GROUP	AN ALPHANUMERIC FIELD FOR DATE/TIME (DDHHMMSSZMONYY) OR "o/o" FOR ON ORDER	ALL	15

(3) Areas will normally be marked with the abbreviation for the type of area followed by a name. This labeling should be in the enter of the area unless the area is to small or the labeling would interfere with the locating of units.

FIELD	FIELD TITLE	DESCRIPTION	APPLICATION	LENGTH
O	CONTROL MEASURE CODE NAME	A NAME GIVEN TO A PHASE LINE AND OTHER CONTROL MEASURES FOR EASY REFERENCE AND SECURITY WHEN USING IN ORDERS AND IN ELECTROMAGNETIC TRANSMISSION. iT IS PLACED IN PARENTHESES BELOW THE ABBREVATION OF A CONTROL MEASURE	CONTROL MEASURES	20
U	CONTROL MEASURE ABBREVIATION	AN ABBREVIATION OF A FIRE SUPPORT OR OTHER CONTROL MEASURE, SUCH AS LOA FOR LIMIT OF ADVANCE	AS NECESSARY	4
W	DATE-TIME GROUP	AN ALPHANUMERIC FIELD FOR DATE/TIME (DDHHMMSSZMONYY) OR "o/o" FOR ON ORDER	ALL	15

(4) Points can be numbered, lettered, or a combination. An abbreviation for the point may be inside the point as in a passage point or release point, or on the upper right hand corner of the point symbol.
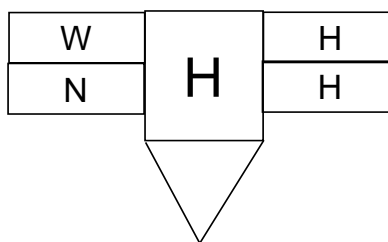
FIELD	FIELD TITLE	DESCRIPTION	APPLICATION	LENGTH
H	ADDITIONAL INFORMATION	FREE TEXT	ALL	20
N	ENEMY (HOSTILE)	INDICATED ENEMY BY LETTERS "ENY"	ENEMY EQUIPMENT, LINES, AREAS, AND BOUNDARIES	3
W	DATE-TIME GROUP	AN ALPHANUMERIC FIELD FOR DATE/TIME (DDHHMMSSZMONYY) OR "o/o" FOR ON ORDER	ALL	15

41

d.   Employment Considerations

        (1) Boundaries are normally drawn along terrain
features recognizable on the ground, and are situated so that key
terrain features and avenues of approach are inclusive to one unit.

Example:
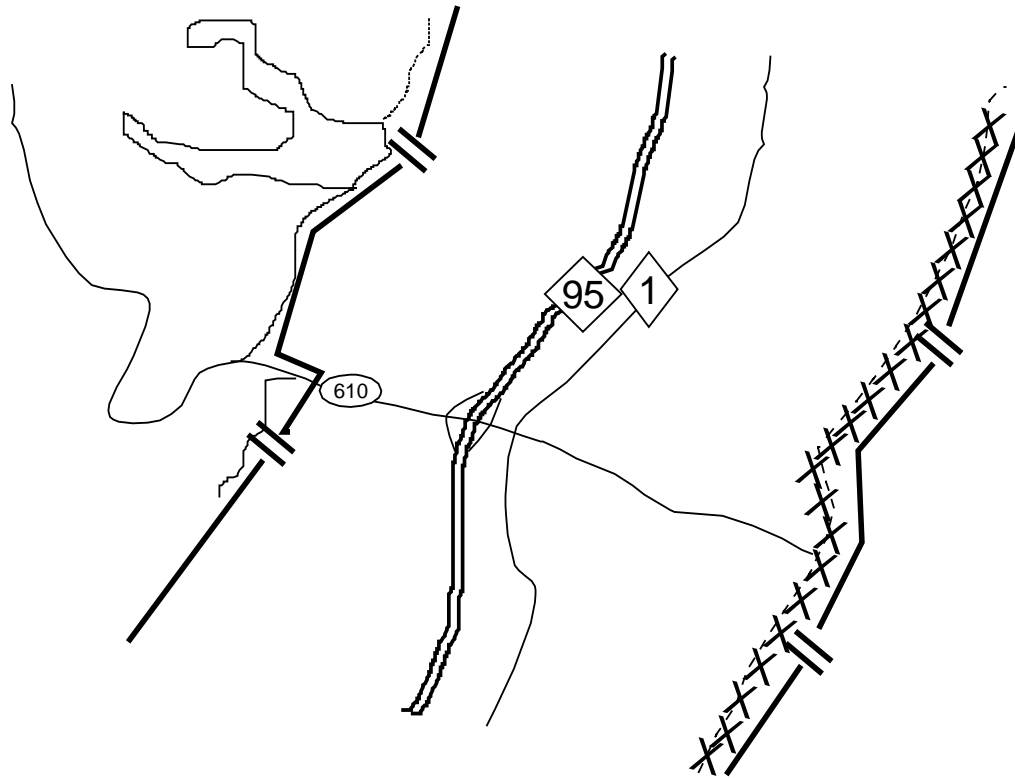
Note: The right boundary is recognizable to the Marines on the
ground by the power line break and the left boundary is recognizable
by the roads and the reservoir. The boundaries have been selected
so that the primary avenue of approach along Routes 95 and 1 is in
one battalion's zone.

(2) A boundary should extend forward beyond an objective at least to the depth necessary for the coordination of fires and positioning of security elements in the seizure and consolidation of the objective.

Note: Units may move and fire temporarily across boundaries only after coordination with the adjacent commander and after notification of the next higher command.

Example:
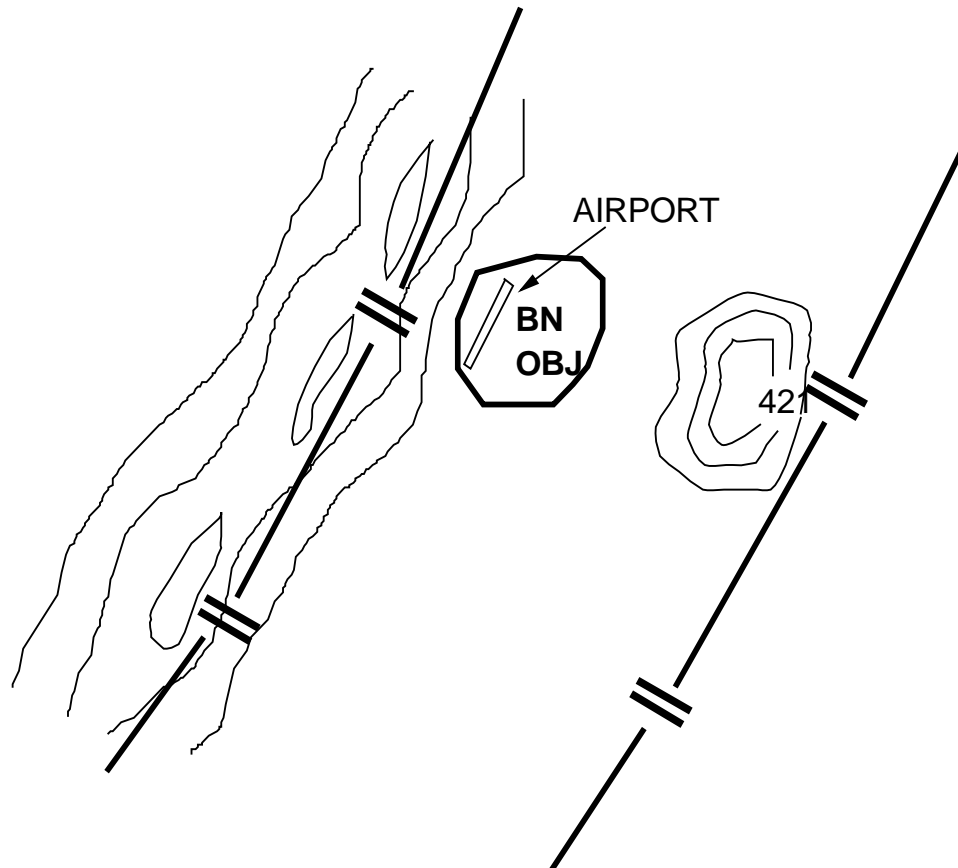
Note: The ridge line and Hill 421 are key to the objective. The boundaries have been selected to include the ridge line on the left of the objective and Hill 421 on the right of the objective so that the battalion responsible can operate in both of these areas as necessary, to include employment of supporting arms.

(3) Consider a battalion attacking through a corridor. By assigning boundaries between the military crests and the topographic crests, enough of the ridges are assigned to this battalion to ensure control of short-range observation into the corridor, thus limiting the defender's flat trajectory fire into the corridor. If the ridges were wooded on the far military crest, the boundary could be placed on the outboard side of the ridges.

Example:

BETWEEN MILITARY
and
TOPOGRAPHIC
CREST

A   B   B   A
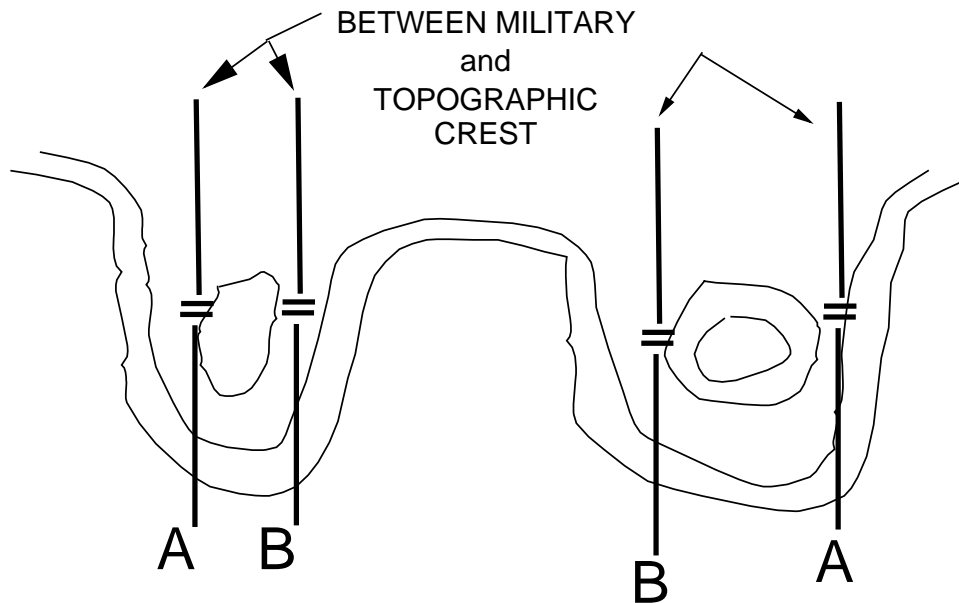
NOTE: Boundaries are located between military crests and topographic crests. Boundaries indicated by either A or B, or a combination thereof, would be normally correct.

(4) Now consider regiments attacking on parallel ridges. In order to ensure full control of the ridges, each regiment is assigned both the topographic and military crests of their respective ridges. The boundaries in the valley between the ridges are located to ensure the valley is controlled by only one of the battalions.

Example:

BOUNDARIES ARE
BETWEEN CENTER
OF CORRIDORS AND
MILITARY CRESTS OF
RIDGES

A   B

A   B
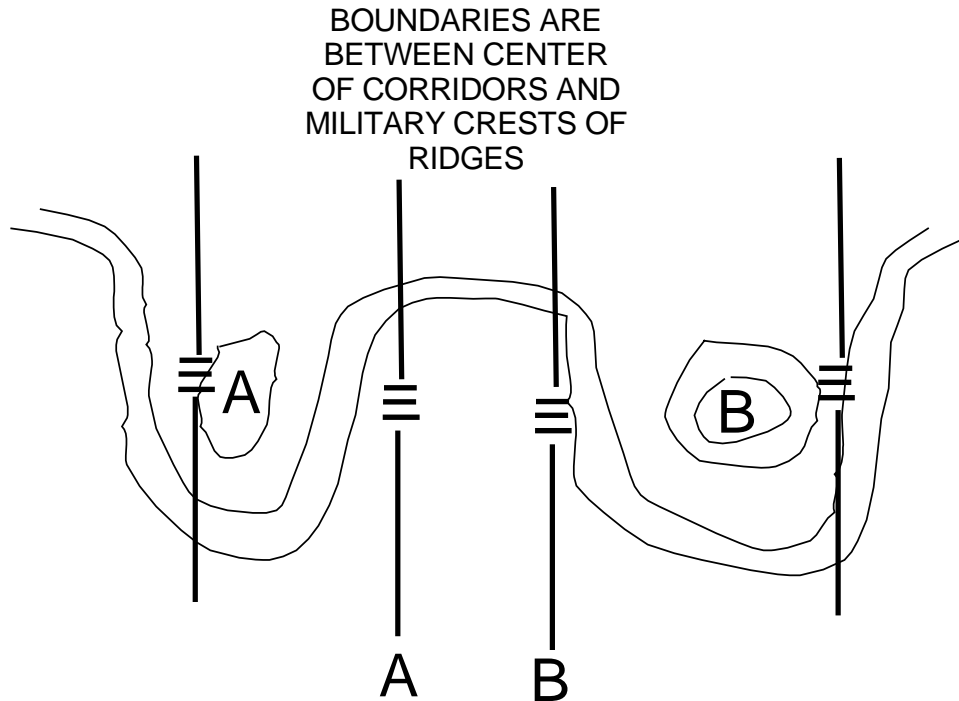
NOTE: Both topographic and military crests are assigned to each regiment to ensure full control of each ridge. Boundaries in the valley are placed so as to give one regiment primary responsbility for the valley

(5) Now consider a battalion attacking through a corridor formed not by ridges, but by vegetation and/or cultural features. The same principles apply. That is, boundaries should extend sufficiently enough to ensure control of the short-range observation and to provide maneuver space for major subordinate elements.

Example:
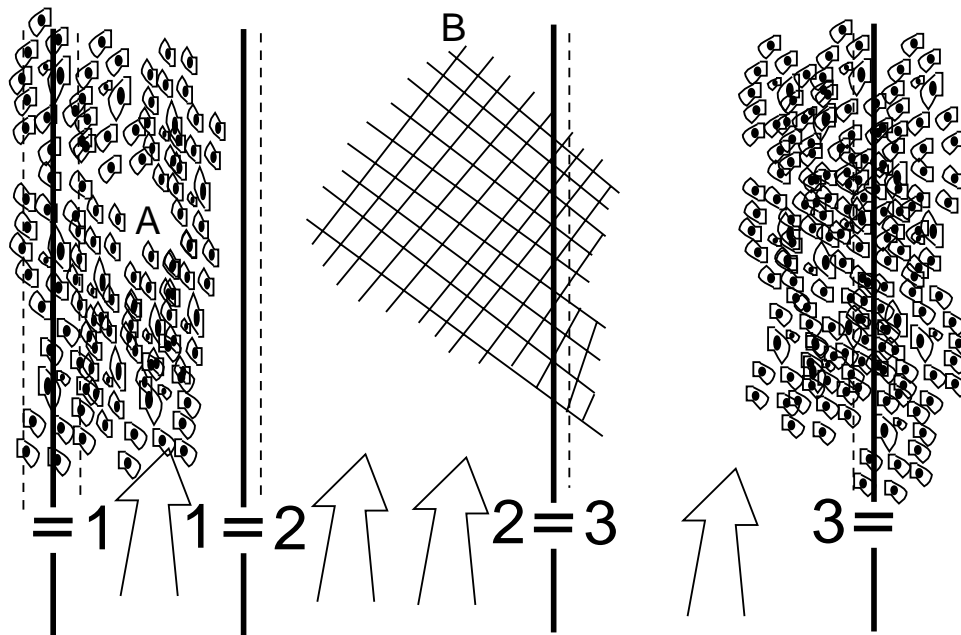
LEARNING ACTIVITY III-B-2

    2. The Objective

        a. Definition. The objective is the "aiming point" of
our attack. It is the physical object of the action taken; it is
usually the enemy, or a definite tactical feature, the seizure
and/or holding of which is essential to the commander's plan.

        b. Discussion. Using the analytical framework of
mission, enemy, troops, terrain and time available (METT-TSL),
commanders designate physical objectives such as an enemy force,
decisive or dominating terrain, a juncture of lines of communication
(LOC), or other vital areas essential to accomplishing the mission.
These become the basis for all subordinate plans. Actions that do
not contribute to achieving the objective must be avoided.

        c. Description. An enclosed area shown by a solid
black line that indicates the exact limits of what is to be seized
or engaged. Objectives are identified by the abbreviation "OBJ" and
number, letter, code name, or unit designation. Objectives are
identified differently at successive echelons. When numbers are
used to identify objectives, the numbers do not establish
importance, priority, or sequence of seizing objectives.

Example:

BN OBJ
A
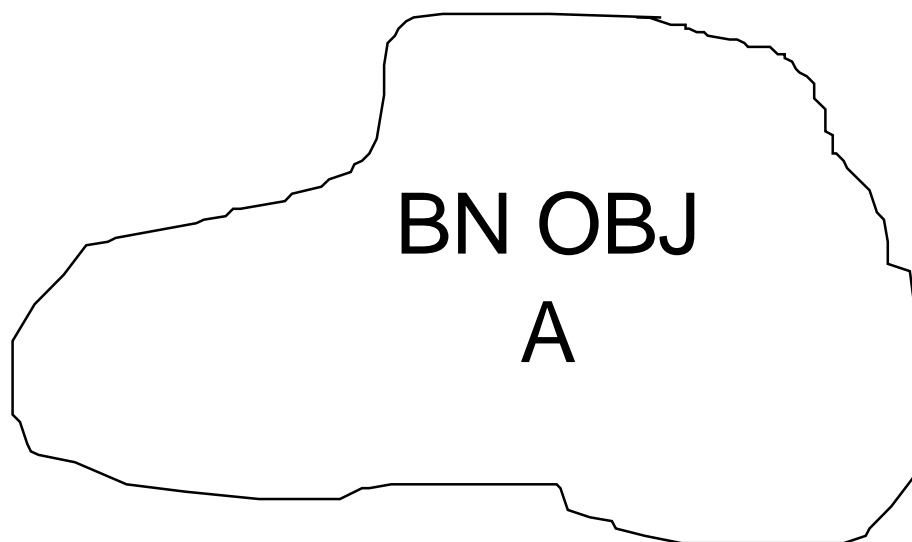
d.   Employment Considerations

(1) Key terrain features may become objectives if
the mission dictates. If the mission is to secure an area, the key
terrain feature or features may be selected with reference to that
area. If the mission is to destroy certain enemy forces, key
terrain features are selected from which the accomplishment of that
mission may be more easily or decisively effected. The key terrain
feature, or features, selected may be designated as objectives or
aiming points of their attacking units. In this manner, commanders
can tie their missions to the ground and begin to develop a scheme
of maneuver.

Example:
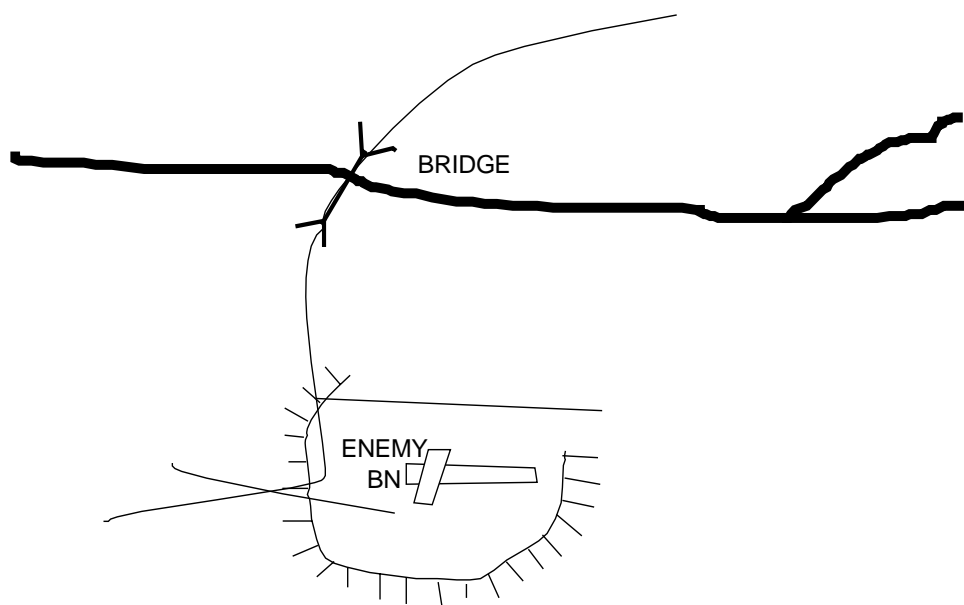
BRIDGE

ENEMY
BN

Note: If the assigned mission was to "destroy the enemy," the
bridge may be chosen rather than the crossroads where the enemy is
actually located. By seizing or controlling the bridge one could
prevent the enemy from (1) withdrawing and (2) being reinforced.

      (2) Intermediate objectives should be designated when prolonged and difficult combat is expected, therefore requiring reorganization prior to seizing the final objective.

Example:
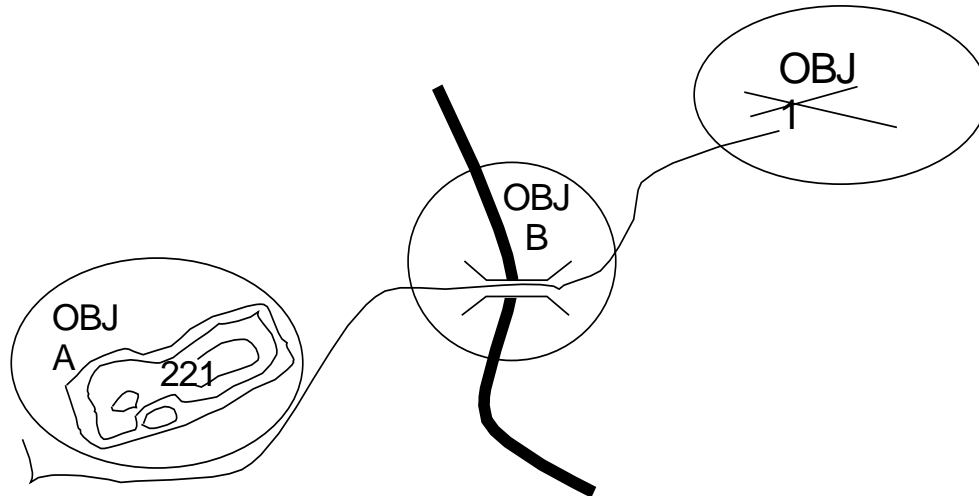
Note: In this example the mission of the unit is to "seize the airfield (OBJ 1)." Objectives A and B have been assigned as intermediate objectives to accomplish this mission. The bridge (OBJ B) must be used to ford the river, and Hill 221 has been assigned as an intermediate objective because it is key to successfully supporting the seizure of the bridge.

(3) Commanders should look carefully at terrain that dominates the entire zone and if occupied by the enemy would interfere with the progress of the attack.

Example:
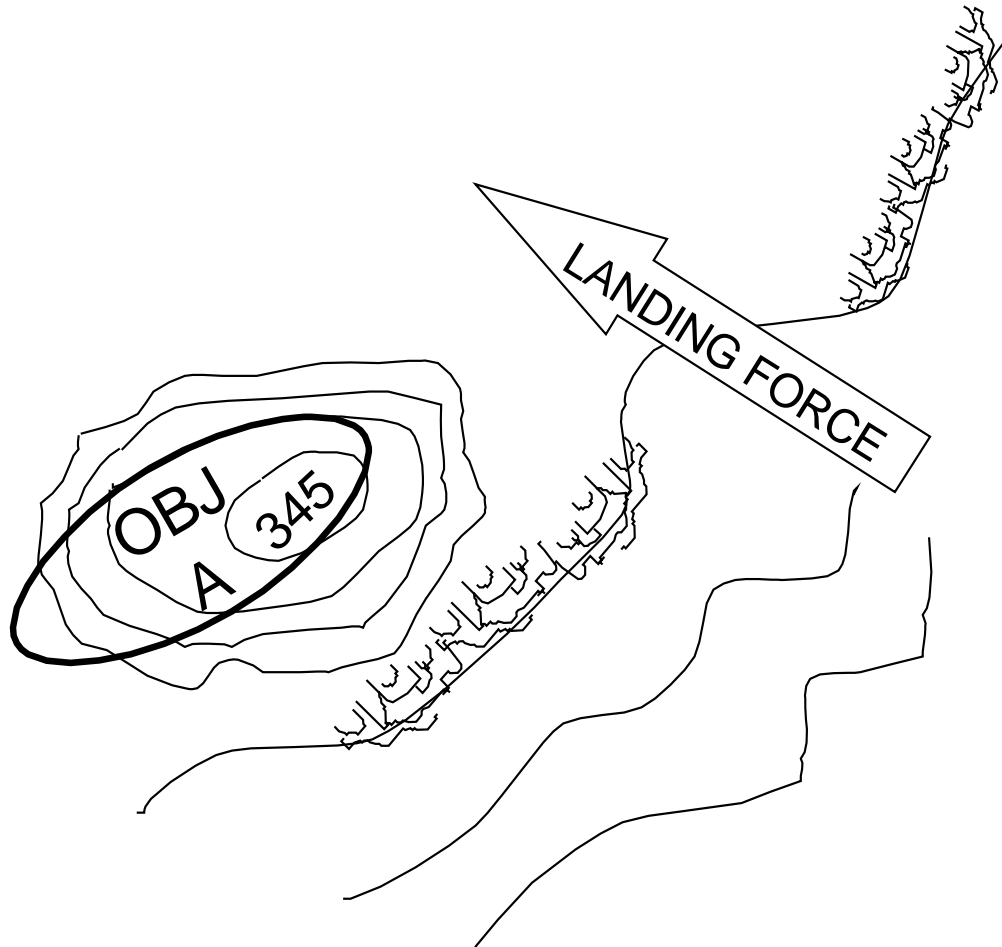
Note: Hill 345 has been assigned as an objective because it has dominating fields of fire and observation over the landing beaches. Enemy possession of Hill 345 could threaten the survival of the landing force.

(4) Another terrain feature that may be a likely objective is a hill that, if occupied, would provide security for movement along an axis of advance or route.

Example:
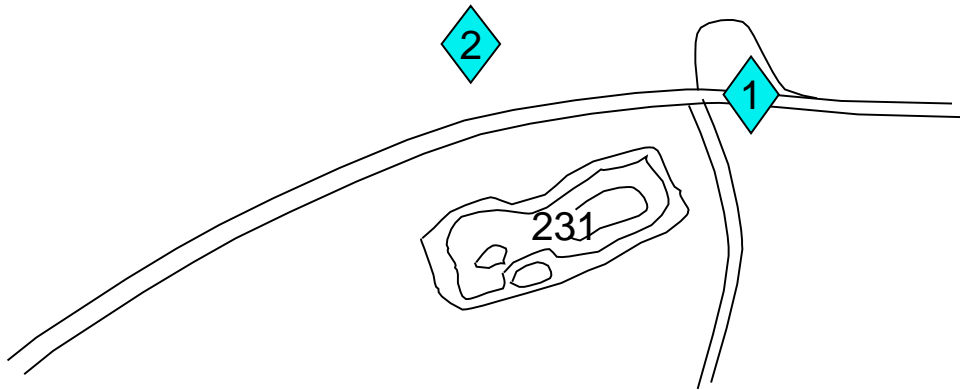
Note: If the mission required achieving and maintaining secure use of Routes 1 and 2, then Hill 231 would be a likely objective.

(5) In areas where observation is limited, objectives could be those terrain features which afford good observation and control of enemy or friendly forces or important key terrain.

Example:
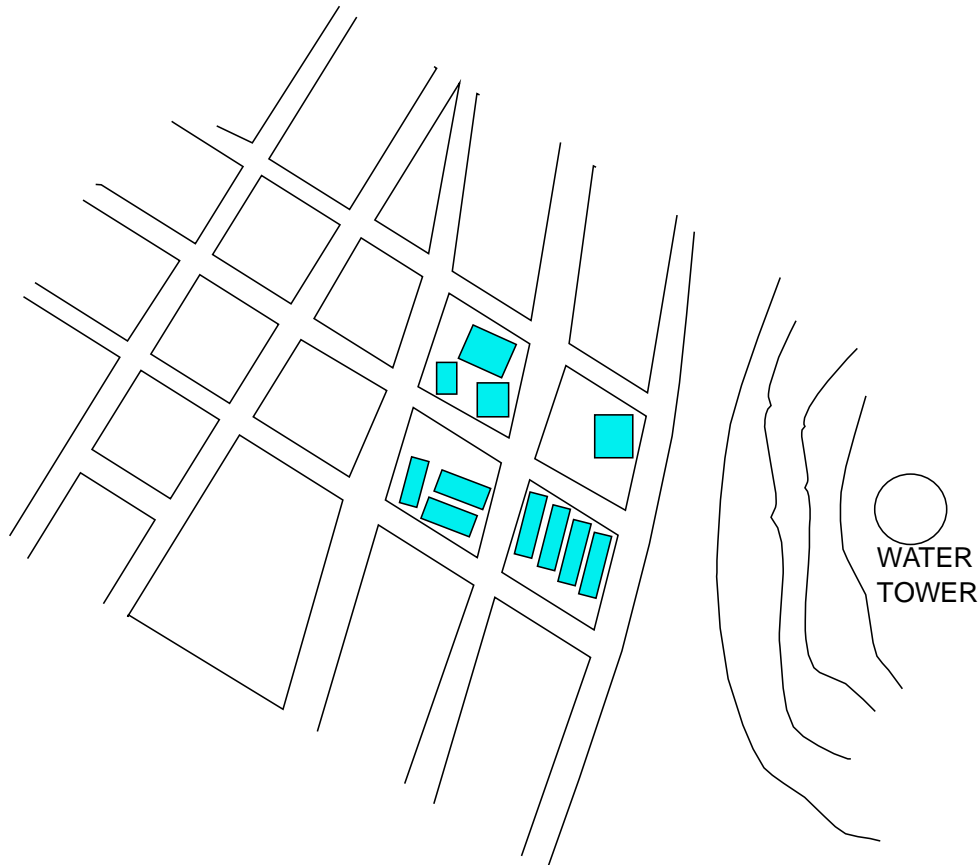
Note: The water tower overlooking the built-up area could be an important objective because it affords excellent observation and fields of fire into the city.

        e. Conclusions. It is imperative that one does not become mesmerized by terrain features like high ground, bridges, highways, road junctions, airports, etc. The selection of the objective must be driven by the assigned mission and the capabilities and actions of the enemy. A magnificent piece of high ground may be critical in one situation and totally worthless in another.

LEARNING ACTIVITY III-B-3

   While the boundaries play an important role in indicating tactical responsibility, the location of the line of departure must be carefully selected.

      3.   Line of Departure

         a.   Definition. A line designated to coordinate the departure of attack elements. In land warfare, a line designated to coordinate the departure of attack elements. In amphibious warfare, a suitably marked offshore coordinating line to assist assault craft to land on designated beaches at scheduled times.

         b.   Description. A solid black line that runs from boundary to boundary. It is labeled with the letters "LD." It is optional to use a date/time group effective as shown below. If the crossing of the LD is on order, then the abbreviation "O/O" is used.

         c.   Example:

```
     LD |                        | LD
        |_____|
        |                        |
 200630RJul98                   200630RJul98
```

         d.   Employment Considerations. The LD is normally placed on clearly identifiable ground so that the attack will not be disrupted by conditions of limited visibility. Roads, trails, streams, power line traces, etc., are a few possible terrain features that can be used to site the control measure.

LEARNING ACTIVITY III-B-4

A control measure that gives the capability to coordinate the maneuver/movement of a force is the phase line.

    4. Phase Line

        a. Definition. A line used for control and coordination of military operations, usually a terrain feature extending across the zone of action. It is usually along a recognizable terrain feature extending across the sector or zone of action. Units normally report crossing PLs, but do not halt unless specifically directed.

        b. Description. A solid black line extending across the entire zone or sector. It is labeled at both ends with the letters "PL" and a code name, letter, or number for identification.

        c. Example:

PL DOG ———————————————————————— PL DOG

        d. Employment Considerations

        (1) It should be placed on a readily identifiable terrain feature to facilitate unit recognition.

        (2) In offensive operations, the phase line is used to control or monitor the forward movement of units.

        (3) A phase line may be used to limit the advance of attacking units. Another way of doing this is to assign a limit of advance which is an easily recognizable terrain feature beyond which attacking elements will not advance.

        (4) It can be used for rapid assignment of on order boundaries.

        (5) In defensive operations, the phase line is used to report rearward movement as the last element of a unit passes it. In addition, phase lines can be used as a limit of advance for security forces operating forward of the forward edge of the battle area (FEBA).

PRACTICAL EXERCISE III-1

1. The _____ is designed to coordinate the departure of attack elements.

2. A _____ is used for coordinating and controlling military operations.

3. Both the line of departure and the phase line are placed on readily identifiable terrain.

TRUE   FALSE

4. Which control measure is drawn completely across the zone of action, from one lateral boundary to the other?

    a. Phase line
    b. Line of departure
    c. Both the line of departure and the phase line

DISCUSSION III-1

1. The <u>line of departure</u> is designed to coordinate the departure of attack elements.

2. A <u>phase line</u> is used for coordinating and controlling military operations.

3. Both the line of departure and the phase line are placed on readily identifiable terrain.

<u>TRUE</u>   FALSE

4. Which control measure is drawn completely across the zone of action, from one lateral boundary to the other?

    a. Phase line
    b. Line of departure
    c. <u>Both the line of departure and the phase line</u>

LEARNING ACTIVITY III-B-5

The least restrictive means of control for an attack is the assignment of a zone of action. Let's see why.

     5.   Zone of Action (SECTOR)

        a. Definition. A tactical subdivision of a larger area, the responsibility for which is assigned to a tactical unit; generally applied to offensive action. An area designated by boundaries within which a unit operates and for which it is responsible.

        b. Description. It is the terrain formed between two boundaries with the forward and rearward limits of the boundaries specifying the limits of the zone.

        c. Example:

OBJ A

2 = 1   A — B

LD   LD
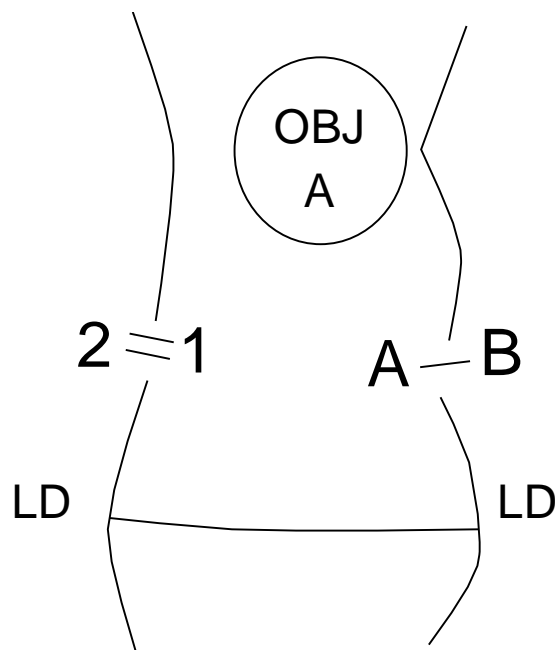
        d. Employment Considerations

        (1) Zones of action are assigned when close coordination and cooperation between adjacent units are required, or when the missions of units require a clear delineation of areas of responsibility.

        (2) Assignment of a zone does not imply clearing the zone of the enemy. If that is the intent, then the commander must specify that to the units concerned.

        (3) Assignment of a zone gives the commander the responsibility for everything that occurs within the zone, and he retains the freedom to fire and maneuver his unit as he sees fit in order to accomplish the assigned mission.

(4) When determining the placement of boundaries that will prescribe a zone of action for a subordinate unit, the commander would usually weigh the following factors:

(a) Mission

(b) Terrain available

(c) Enemy

(d) Maneuver space required

(e) Size and nature of the objective

(5) At platoon and squad level, the zone of action is expressed as frontage.

(6) Normally, sectors are used in defensive operations and have a forward edge of the battle area designated by a higher commander.

PRACTICE EXERCISE III-2

1. It is understood that when a unit is assigned a zone of action it is required to clear that entire area of enemy.

TRUE   FALSE

DISCUSSION III-2

1. FALSE. The assignment of a zone of action does not imply that the unit assigned is responsible for clearing the area of enemy. Assignment of a zone of action gives the commander the responsibility for everything that occurs within the zone, and he retains the freedom to fire and maneuver his unit as he sees fit in order to accomplish the assigned mission.

LEARNING ACTIVITY III-B-6

      6.   Assembly Area

         a. Definition. An area in which a command is assembled preparatory to further action.

         b. Description. An enclosed area with a solid black line and an interior designation. It is normally designated by a unit symbol placed inside it.

         c. Example:
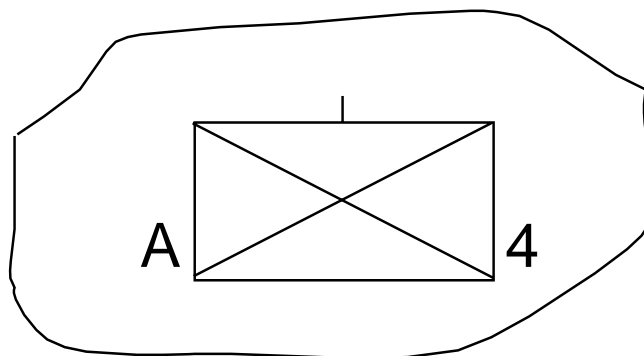
         d. Employment Considerations

            (1) The use of the assembly area should be for administrative functions of the unit. Rearming, refueling, resting, messing, and planning etc., are all functions performed in this area.

            (2) It should be located in an area that is large enough for the unit to occupy while still being able to maintain unit integrity and provide for good security.

            (3) The area should offer the maximum cover and concealment. Ideally, it should be near a good road network and be able to support helicopter landing zones. The communications officer should be involved in the decision because of the radio/wire requirements. The assembly area should be readily identifiable by messengers.

            (4) The selected area should be out of sight of enemy forward observers.

PRACTICE EXERCISE III-3

1. An assembly area is used for _____ functions.
(Circle one)

    TACTICAL   ADMINISTRATIVE

DISCUSSION III-3

1. An assembly area is used for ADMINISTRATIVE functions. Assembly areas should be used for administrative functions of the unit. Rearming, refueling, resting, messing, etc., are all functions performed in this area.

    The assembly area should offer maximum cover and concealment. Ideally, it should be near a good road network and be able to support helicopter landing zones.

    The selected assembly area should be out of sight of enemy observers.

LEARNING ACTIVITY III-B-7

      7.   Attack Position

         a. Definition. The last position occupied by the assault echelon before crossing the line of departure.

         b. Description. An enclosed area shown by a solid black line encompassing the actual limits of the area to be used by the assigned unit. A unit designation, number, or code name may be used when necessary for identification.

         c. Example:
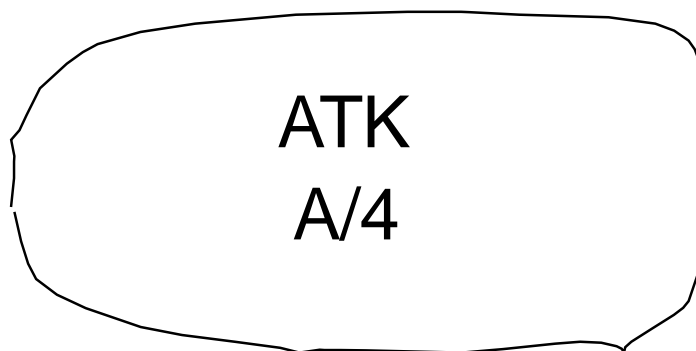
         d. Employment Considerations

         (1) Attack positions are not a requirement by doctrine and are used as required. As a guideline, attack positions are used in night attacks, river crossings, and counterattacks because of the stringent control requirements necessary to execute these attacks.

         (2) Attack positions are normally selected by unit commanders, are used to complete final preparations for combat, and are occupied for a minimum period of time.

         (3) Normally, this is the last covered and concealed position before crossing the line of departure.

PRACTICE EXERCISE III-4

1. Attack positions are required for all offensive operations.

               TRUE   FALSE

DISCUSSION III-4

1. FALSE. Attack positions are used only as required. Attack positions are most often used in situations where stringent control is required. Attack positions are often assigned in the execution of night attacks, river crossings, and counterattacks.

The attack position is usually the last covered and concealed position before crossing the line of departure.

LEARNING ACTIVITY III-B-8

     A control measure vital to helicopterborne operations is the
landing zone (LZ). It is necessary to look at the LZ after
discussing objective because of the key relationship these control
measures have.

          8. Landing Zone (LZ)

               a. Definition. Any specified zone used for the landing
of aircraft.

               b. Description. The LZ is shown by a solid black line
that encompasses the intended area. It is labeled with LZ and a
code word, frequently a bird's name.

               c. Example:

LZ
ROBIN
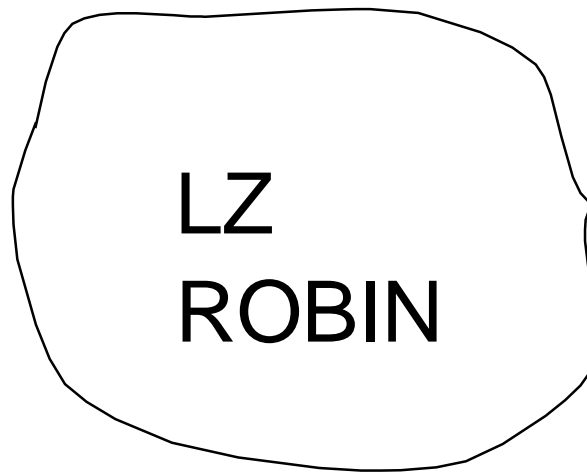
               d. Employment Considerations

                    (1) The landing force commander selects LZs based on
the recommendations of the helicopterborne and helicopter unit
commanders.

                    (2) The number of LZs utilized depends on the plan
of attack and is directly related to the availability of suitable
terrain and to the size of the force lifted.

                    (3) Selection of an LZ depends on many factors,
including the concept of operations ashore, enemy capabilities,
proximity to initial objectives, ease of identification from the
air, and the suitability and capacity for landing and takeoff of
helicopters.

                    (4) The size of an LZ is dependent upon the height
of obstacles surrounding the zone and the type and number of
helicopters being utilized.

PRACTICE EXERCISE III-5

1. Correctly illustrate the following tactical control measures:

    a. Line of Departure

    b. Phase Line (Gold)
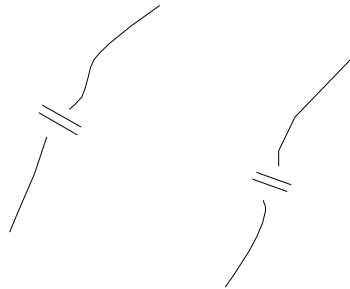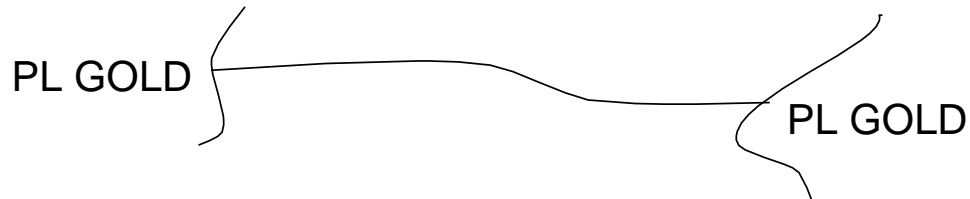
    c. Assembly area for Co B (Rein), 3d Battalion.
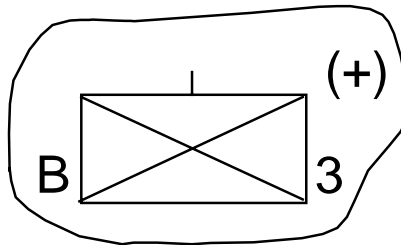
    d. Attack position for Co B (Rein), 3d Battalion.

    e. Landing zone (code name HAWK)

DISCUSSION III-5

1. Correctly illustrate the following tactical control measures:

    a. Line of Departure

    LD

    b. Phase Line (Gold)

    PL GOLD   PL GOLD

    c. Assembly area for Co B (Rein), 3d Battalion

    (+)

    B   3

    d. Attack position for Co B (Rein), 3d Battalion

    ATK

    B/3(+)
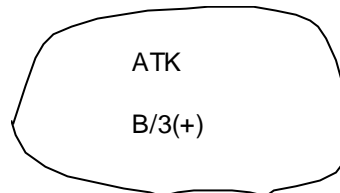
    e. Landing zone (code name HAWK)

    LZ
    HAWK
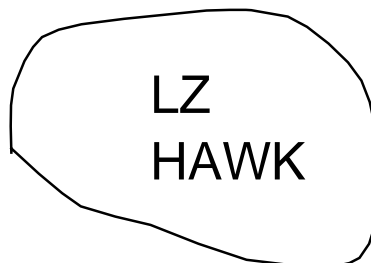
PRACTICE EXERCISE III-6

Match the definition with the correct tactical control measure.

___ 1. An area in which a command   A. Line of departure
          is assembled preparatory to
          further action.   B. Phase line

___ 2. The last position occupied   C. Zone of action
          by the assault echelon
          before crossing the line   D. Assembly area
          of departure.
                                              E. Attack position

___ 3. A line utilized for control
          and coordination of military   F. Landing zone
          operations, usually a terrain
          feature extending across the
          zone of action.

___ 4. A line designated to coordi-
          nate the departure of attack
          elements.

___ 5. Any specified zone used for
          the landing of aircraft.

___ 6. A tactical subdivision of a
          larger area, the responsi-
          bility for which is assigned
          to a tactical unit; generally
          applied to offensive action.

DISCUSSION III-6

Match the definition with the correct tactical control measure.

 D 1. An area in which a command   A. Line of departure
         is assembled preparatory to
         further action.   B. Phase line

 E 2. The last position occupied   C. Zone of action
         by the assault echelon
         before crossing the line   D. Assembly area
         of departure.
                                             E. Attack position
 B 3. A line utilized for control
         and coordination of military   F. Landing zone
         operations, usually a terrain
         feature extending across the
         zone of action.

 A 4. A line designated to coordi-
         nate the departure of attack
         elements.

 F 5. Any specified zone used for
         the landing of aircraft.

 C 6. A tactical subdivision of a
         larger area, the responsi-
         bility for which is assigned
         to a tactical unit; generally
         applied to offensive action.

LEARNING ACTIVITY III-B-9

One of the most important things a commander must decide during planning is how strictly he will control forces. He imposes this control with a variety of different measures. The first and most restrictive is the route.

9. Route

    a. Definition. The prescribed course to be traveled from a specific point of origin to a specific destination. (Joint Pub 1-02)

    b. Description. It is depicted by a line which indicates the specific course of travel. It often begins with a start point (SP) and ends with a release point (RP). Routes are normally labeled with the word "ROUTE" or "RTE" with a unit designator, letter, number, or code name.

    c. Example:
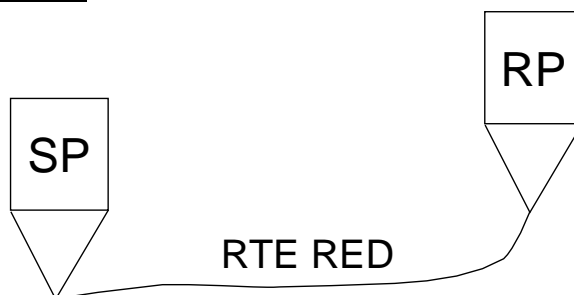
    d. Employment Considerations

        (1) The route is very restrictive, requiring the commander to move the center of mass of his formation along the specific path given.

        (2) Routes are normally placed on easily identifiable terrain features like roads, trails, etc.

        (3) If attack positions are used, routes are frequently prescribed to move forces from assembly areas to them.

PRACTICE EXERCISE III-7

1. Select the correct statement.

    a. A route assigns a specific path to a unit.

    b. A route assigns a general trace of movement.

2. A route has a _____ point at the beginning and a _____ point at the end.

3. Depict a route (Route Blue).

DISCUSSION III-7

1. The correct statement is:

    a. A route assigns a specific path to a unit.

        When a route is assigned, the route is very restrictive, requiring the commander to move the center of mass of his formation along the specific path given.

2. A route has a <u>start point</u> at the beginning and a <u>release</u> point at the end.

3. Depict a route Route Blue).

RP

SP

RTE RED
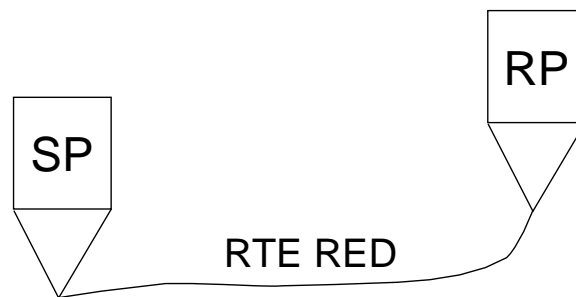
LEARNING ACTIVITY III-B-10

     If the same degree of strict control that we see in a route of
march is required during an attack, we assign a direction of attack.

     10.   Direction of Attack

          a.   Definition. A specific direction or route that the
main attack or center of mass of the unit will follow. The unit is
restricted, required to attack as indicated, and is not normally
allowed to bypass the enemy. The direction of attack is used
primarily in counterattacks or to ensure that supporting attacks
make maximal contribution to the main effort. (Joint Pub 1-02)

          b.   Description. Drawn as an arrow formed from a single
line. It is drawn from the line of departure to the objective. The
single arrowhead is the general symbol indicating an attack.

          c.   Example:

OBJ A

LD ———————————— LD
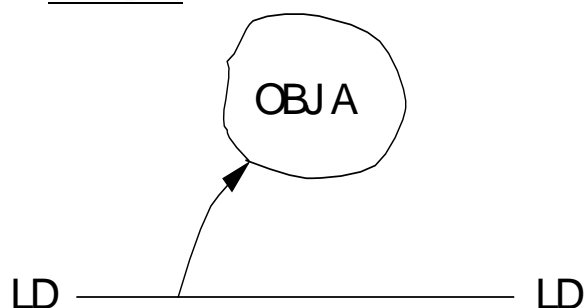
          d.   When used as an overlay technique to help explain
the scheme of maneuver, we can further differentiate between the
main and supporting attacks and the use of a feint by portraying a
double-headed arrow for the main effort, a single-headed arrow for
the supporting attack, and a broken-headed arrow for a feint.

          e.   Example:

     Main   Supporting   Feint

75
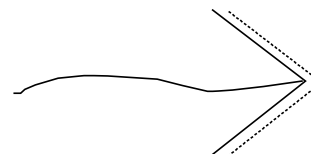
f.   Employment Considerations

(1) It is the most restrictive attack control measure.

(2) It is normally drawn on terrain that is easily identifiable during periods of reduced visibility, e.g., roads, trails, natural avenues of approach, etc.

(3) It is used only when the commander must maintain close control over the maneuver of a subordinate element along a specific route to ensure the accomplishment of a closely coordinated scheme of maneuver.

(4) A direction of attack is almost always used in counterattacks and night attacks.

(5) Normally used at battalion and lower levels. Direction of attack is a more restrictive control measure than axis of advance, and units are not free to maneuver off the assigned route. It is usually associated with infantry units conducting night attacks or units involved in limited visibility operations and counterattacks.

PRACTICE EXERCISE III-8

1. The direction of attack is the most restrictive attack control measure.

TRUE   FALSE

2. The route of march begins with a start point and ends with a release point. The direction of attack begins at the _____ and terminates at the _____ .

3. Depict a direction of attack for a main effort.

OBJ A
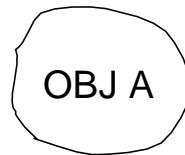
LD ———————————————— LD

4. Depict a direction of attack for a supporting attack.

OBJ A
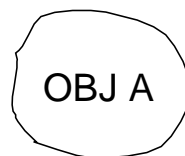
LD ———————————————— LD

DISCUSSION III-8

1.   TRUE. The direction of attack is the most restrictive of the attack control measures.

     The direction of attack dictates the specific direction or route that the center of mass of the unit will follow. The unit is restricted, required to attack as indicated, and is not normally allowed to bypass the enemy. The direction of attack is used primarily in counterattacks or to ensure that supporting attacks make maximal contribution to the main effort. Although assigning a direction of attack to a unit makes its movements much more controlled, it also prevents the unit from responding flexibly to the changing situation and taking initiative.

2.   The route of march begins with a start point and ends at a release point. The direction of attack begins at the line of departure and terminates at the objective.

3.   Depict the direction of attack for a main effort.
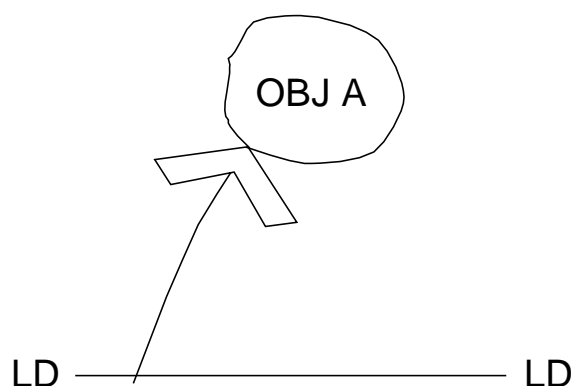
4.   Depict the direction of attack for a supporting effort.
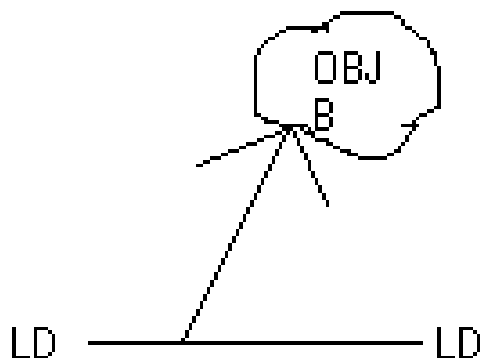
LEARNING ACTIVITY III-B-11

A way to allow the commander more flexibility in movement, yet still keep him along an avenue of approach would be to assign an axis of advance, sometimes called "the big blue arrow."

11. Axis of Advance

a. Definition. A line of advance assigned for the purpose of control; often a road or group of roads or a designated series of locations, extending in the direction of the enemy.

b. Description. Drawn as a large arrow extending from the line of departure to the assigned objective. It is labeled with a code name, letter, or unit designation. A helicopterborne axis of advance differs in that the arrow has a twist in it and the arrow normally begins at the loading zone (if shown on the overlay). The drawn axis of advance for a helicopterborne lift does not necessarily indicate the actual route flown.

c. A helicopterborne axis of advance is placed from the loading zone to the landing zone.

d. Example:

e. <u>Example</u>:

MAIN   SUPPORTING   FEINT   PROPOSED

EFF 040500Z NOV
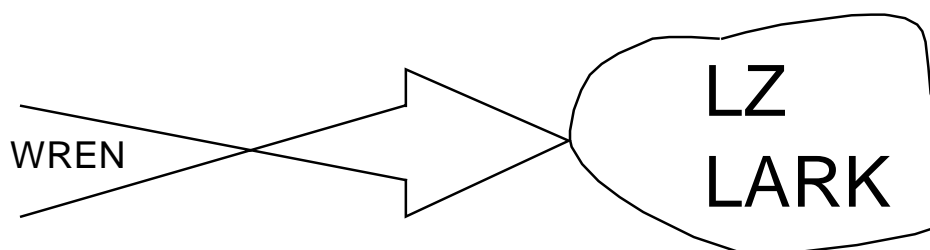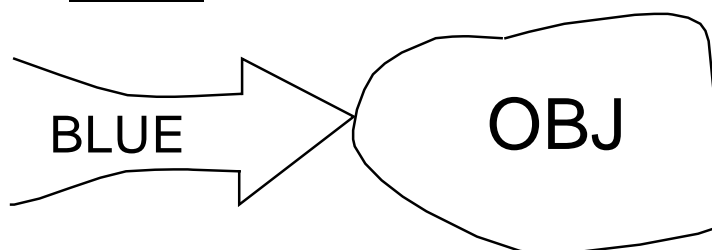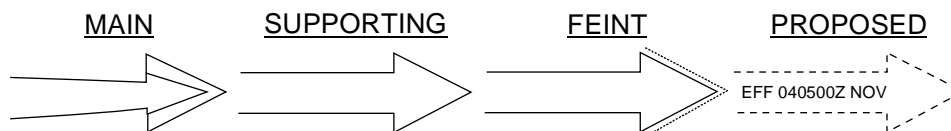
f. <u>Employment Considerations</u>

(1) Axis of advance is a general route of advance assigned for purposes of control which extends toward the enemy. An axis of advance symbol graphically portrays a commander's intention, such as avoidance of built-up areas or envelopment of an enemy force. It follows terrain suitable for the size of the force assigned the axis and is often a road a group of roads or a designated series of locations. A commander may maneuver his forces and supporting fires to either side of an axis of advance provided the unit remain oriented on the axis and the objective. Deviations from an assigned axis of advance must not interfere with the maneuver of adjacent units without prior approval of the higher commander. Enemy forces that do not threaten security or jeopardize mission accomplishment may be bypassed. An Axis of advance is not used to direct the control of terrain or the clearance of enemy forces from specific locations. Intermediate objectives normally are assigned for these purposes.

(2) The arrow indicates a general direction of movement for a unit. A commander assigned an axis of advance may deviate from the axis; however, a major deviation must be reported. He must remain oriented on the objective if a deviation occurs.

(3) An axis of advance is used when conditions favor the use of a certain approach facilitating rapid seizure of a deep objective, in operations against light or discontinuous enemy resistance, and where the need for a mutually supported attack does not exist.

(4) The assignment of an axis of advance gives general guidance to a subordinate but allows him considerable latitude in accomplishing his mission.

(5) An axis of advance may be used within a zone of action to more closely control the general location of a subordinate unit within the assigned zone of action.

(6) Axes are labeled with names inside the shaft of the arrow to distinguish one axis from another.

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PRACTICAL EXERCISE III-9

1. An axis of advance is more restrictive than a direction of attack.

                    TRUE   FALSE

2. A helicopterborne axis of advance has a _____ in it and terminates at a _____ .

3. Depict an axis of advance for a helicopterborne feint attack, code name "Green."

LZ JAY

4. Depict an axis of advance for a main effort, code name "Blue."

LD

LD

OBJ A
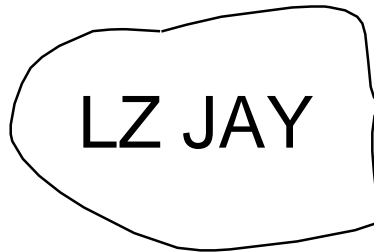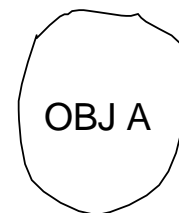
DISCUSSION III-9

1. FALSE. A direction of attack is the most restrictive attack control measure.

     A commander assigned an axis of advance may deviate from the axis; however, a major deviation must be reported. The assignment of an axis of advance gives general guidance to a subordinate but allows him considerable latitude in accomplishing the mission.

2. A helicopterborne axis of advance has a twist in it and terminates at a landing zone.

3. Depict an axis of advance for a helicopterborne feint attack, code name "Green."

GREEN LZ JAY

4. Depict an axis of advance for a main effort, code name "Blue."

LD
BLUE OBJ A
LD
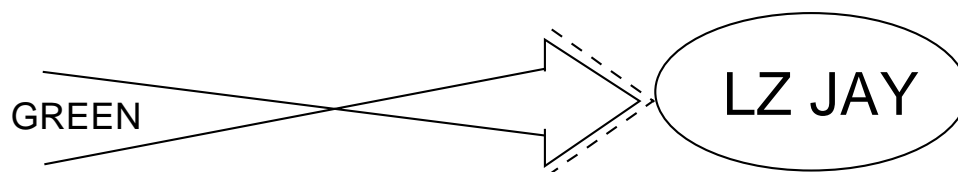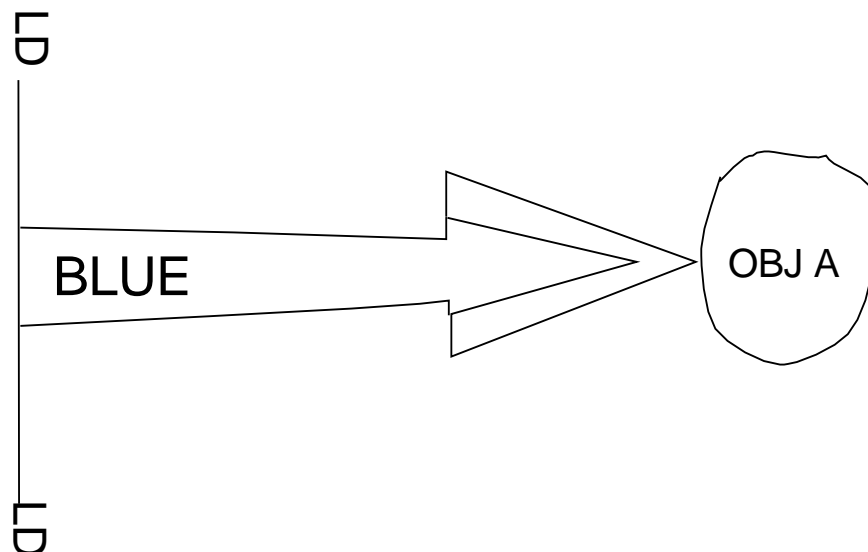
LEARNING ACTIVITY III-B-12

      12. Bridgehead Line

          a. Definition. The limit of the objective area in the development of the bridgehead. (Joint Pub 1-02)

          b. Description. A broken black line which encloses the bridgehead objectives and the fording area. Both ends of the bridgehead line terminate on the river banks.

          c. Example:
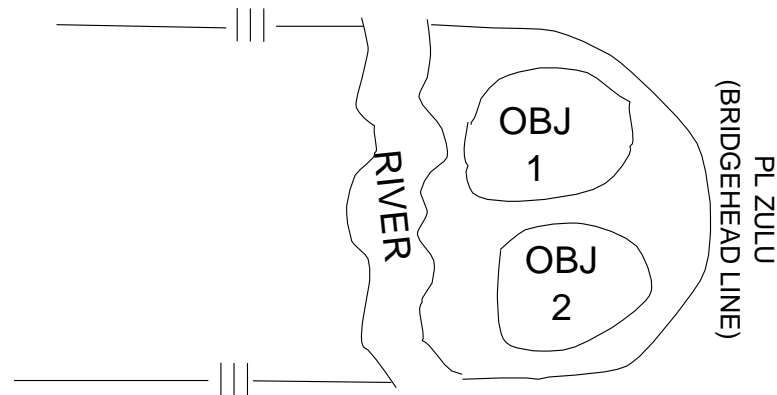
          d. Employment Considerations. It is used on the enemy side of the obstacle. The bridgehead line should be at sufficiently extended distance to prevent enemy direct fire on and observation of the crossing site.

PRACTICE EXERCISE III-10

1. A bridgehead line is assigned in such a way as to prevent enemy
_____ and observation of the crossing site.

<u>DISCUSSION III-10</u>

1. A bridgehead line is assigned in such a way as to prevent enemy <u>direct fire </u>on and observation of the crossing site.

LEARNING ACTIVITY III-B-13

     13.   Limit of Advance

         a.   Definition.   An easily recognized terrain feature beyond which attacking elements will not advance.

         b.   Description.   The symbol is depicted by drawing a solid black line along an easily identifiable terrain feature.

         c.   Example:

OBJ 1

LOA
PL BOA

LOA
PL BOA
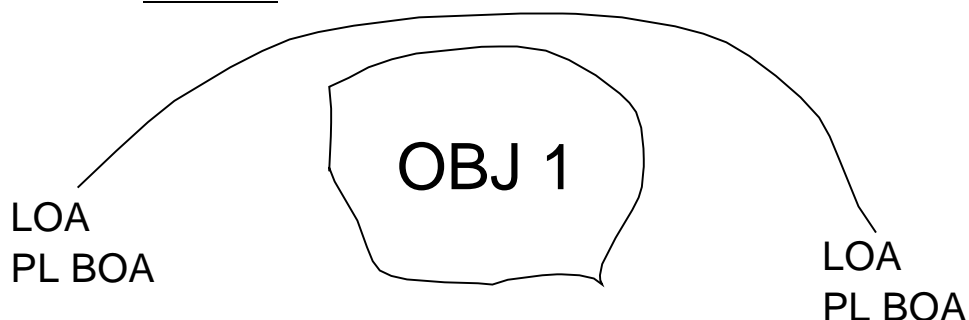
         d.   Employment Considerations.   The limit of advance is most often used to control counterattacks, particularly those that will be conducted at night or in conditions of reduced visibility.   It is critical that a readily observable terrain feature is selected so that the forces conducting the attack will have no trouble identifying their limit.

PRACTICE EXERCISE III-11

1. The most important feature of a limit of advance is that it must be on _____ terrain.

DISCUSSION III-11

1. The most important feature of a limit of advance is that it must be on <u>easily identifiable</u> terrain.

<u>LEARNING ACTIVITY III-B-14</u>

14. <u>Infiltration Lane</u>

a. <u>Definition</u>. The movement through or into an area or territory occupied by either friendly or enemy troops or organizations. The movement is made, either by small groups or by individuals, at extended or irregular intervals. When used in connection with the enemy, it infers that contact is avoided. In intelligence usage, placing an agent or other person in a target area in hostile territory. Usually involves crossing a frontier or other guarded line.

b. <u>Description</u>. An infiltration is depicted graphically by two solid lines with the words "infiltration lane" and the unit designation.

c. <u>Example</u>:

ENY

LANE SNEAK

ENY

90
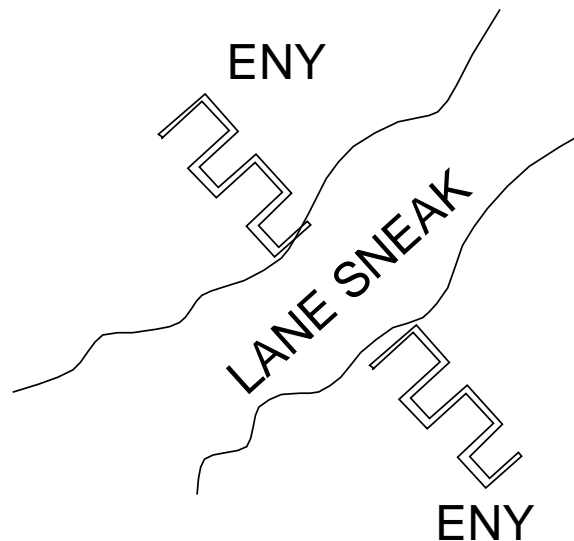
LEARNING ACTIVITY III-B-15

We need a control measure that will allow us to rapidly refer to a specific piece of terrain. Enter the checkpoint.

15. Checkpoint

a. Definition. A predetermined point on the surface of the earth used as a means of controlling movement, a registration target for fire adjustment, or reference for location. (Joint Pub 1-02)

b. Description. The checkpoint is drawn as a box with an attached arrowhead, with number inside the box. The arrowhead points to the exact location on the ground of the desired checkpoint.

c. Example:
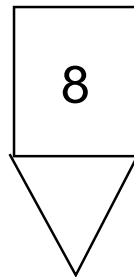
d. Employment Considerations

(1) They may be selected throughout the entire zone of action, axis of advance, or direction of attack.

(2) They can also be used by the commander to rapidly designate objectives, LD, assembly areas, firing positions, or other localities to subordinate commanders.

(3) For security, random numbering of checkpoints is essential.

(4) They are particularly useful in mechanized operations.

LEARNING ACTIVITY III-B-16

Conducting a passage of lines is a complicated procedure and to facilitate control during the passage we use passage points.

16. Passage Point

a. Definition. A specifically designated place where units will pass through one another either in an advance or a withdrawal. It is located where the commander desires subordinate units to physically execute a passage of lines.

b. Description. A passage point is depicted the same as a checkpoint except that PP is placed above the point designator inside the box.

c. Example:
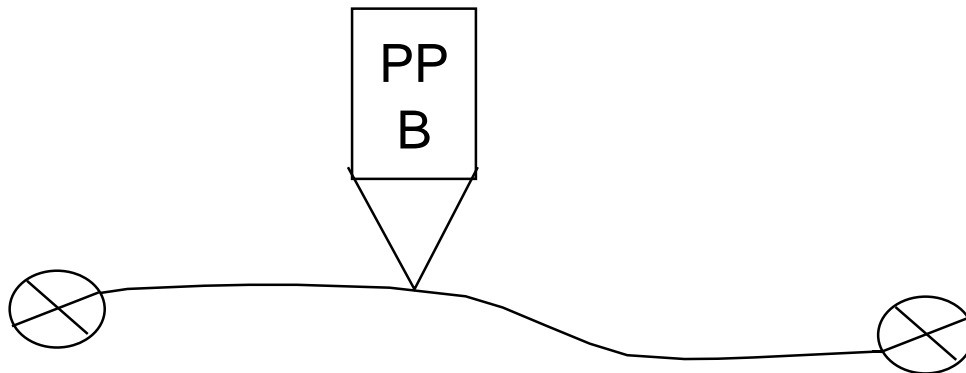
d. Employment Considerations

(1) By definition, this control measure must be on a boundary or phase line separating two units.

(2) A passage point will be placed at both a point of entry and a point of exit on the stationary unit's boundaries. When designating passage points, one should designate an alternate passage point where feasible. Passage points can be designated with numbers or letters.

LEARNING ACTIVITY III-B-17

Another important type of offensive operation is a linkup. We use linkup points to indicate where the physical linkup will occur.

17. Linkup Point

a. Definition. An easily identifiable point on the ground where two forces conducting a linkup meet. (FM 101-5-1)

b. Description. The linkup point is depicted the same as a checkpoint except the letters "LU" are placed above the number in the box. Some doctrinal publications still show the linkup point as a circle with a dot, or with a dot placed above the number, but these are doctrinally incorrect and will be changed in future publications.

c. Example:

```
 _____
|           |
|    LU     |
|           |
|     8     |
|_____|
 \         /
  \       /
   \     /
    \   /
     \ /
      V
```
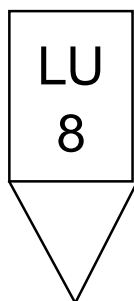
d. Employment Considerations

(1) When one force is stationary, the linkup points normally are established where the moving force's routes of advance intersect the stationary force's security elements.

(2) Linkup points for two moving forces are established on boundaries where the two forces are expected to converge.

(3) Primary and alternate linkup points should be established.

LEARNING ACTIVITY III-B-18

Another control measure designed to require contact between two friendly forces, the contact point, is seeing wider use.

18. Contact Point

a. Definition. A point on the terrain, easily identifiable, where two or more units are required to make contact.

b. Description. A black box with a number or letter centered inside. The end of the staff is the exact location where contact should be made.

c. Example:
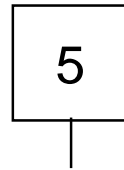
d. Employment Considerations

(1) By definition, a contact point is normally located on a boundary between two units.

(2) It is used where the commander wants units to make physical contact.

(3) Contact points may be used during the consolidation of position to designate where units will coordinate the organization of the position.

LEARNING ACTIVITY III-B-19

19. Coordinating Point

    a. Definition. Designated point at which, in all types of combat, adjacent units/formations must make contact for purposes of control and coordination.

    b. Description. A circle with a cross in the center.

    c. Example:
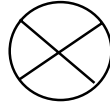
    d. Employment Considerations

        (1) Coordinating points are placed at the inter-section of the FEBA and any lateral boundaries. Additionally, coordinating points may be used where phase lines are used to control security forces forward of the FEBA.

        (2) When possible, coordinating points should be located on readily identifiable terrain that the commander wants subordinate commanders to coordinate observation and fires in a defensive situation. The subordinate commanders determine at these points whether the area between their units should be covered by fires, barriers, physical occupation, or a combination of these means.

LEARNING ACTIVITY III-B-20

20. Probable Line of Deployment

a. Definition. Designated line/location easily recognizable on the ground, where units will be deployed within assaulting distance of the objective during a night attack.

b. Description. A dashed line (black) with PLD at both ends.

c. Example:

PLD
(PL BLACK)
PLD
(PL BLACK)
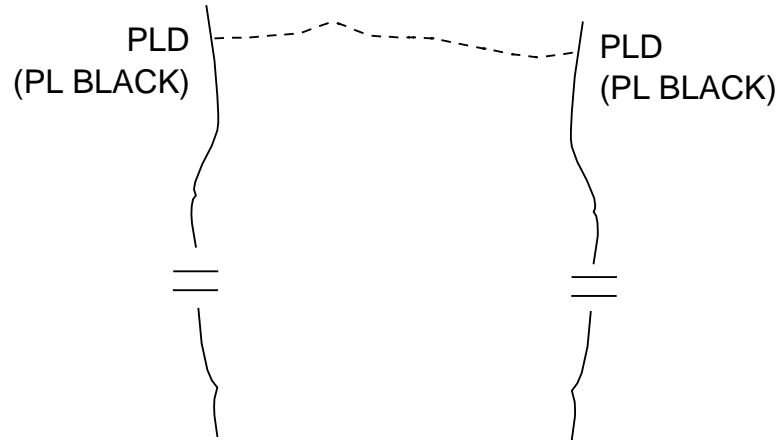
d. Employment Considerations

(1) Emplaced on easily recognizable terrain; i.e., stream, road, etc.

(2) Can be changed upon approval.

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21. <u>Point of Departure</u>

    a. <u>Definition</u>. In night attacks, a specific place on the line of departure (LD) where a unit will cross. (FM 101-5-1)

    b. <u>Description</u>. A box with an attached arrowhead and PD (plus a number if more than one) inside the box. The arrow points to the exact location where the crossing will take place.

    c. <u>Example</u>:
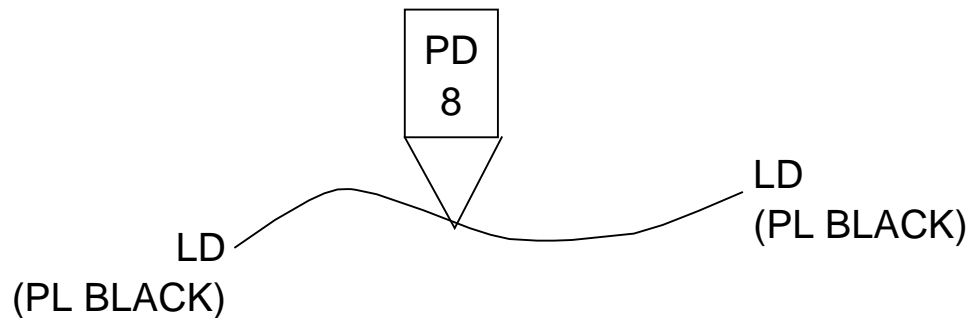
LEARNING ACTIVITY III-B-22

    22. <u>Beachhead Line</u>

        a. <u>Definition</u>. The designated area on a hostile shore which, when seized and held, ensures the continuous landing of troops and material, and provides maneuver space requisite for projected subsequent operations ashore. It is the objective of the amphibious operation.

        b. <u>Description</u>. The FBHL is a solid black line drawn generally around the outer edge of the most distant objectives representing the area that must be seized or controlled with the letters FBHL at each end of the line.

        c. <u>Example</u>:
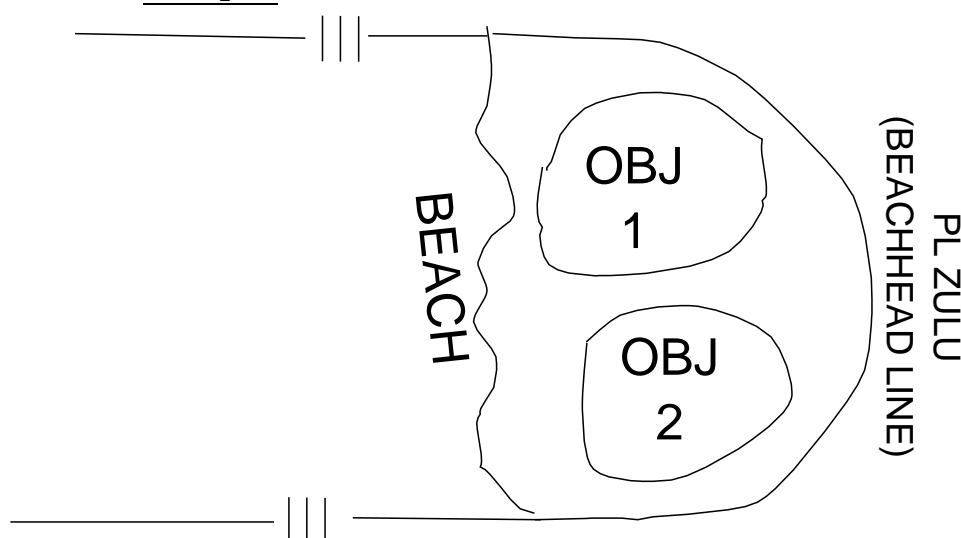
        d. <u>Employment Considerations</u>

        (1) The FBHL is a planning guide only.

        (2) It is nonrestrictive for both maneuver and fire support.

        (3) During planning, if objectives are designated beyond the FBHL, it is moved.

        (4) During the assault, if objectives are designated beyond the FBHL, it is not necessary to move it. Control and fire support coordination measures are adjusted as necessary.

23. <u>Attack by Fire Position</u>

a. <u>Definition</u>. Fires (direct and indirect) employed to destroy the enemy from a distance, normally used when the mission does not dictate or support occupation of the objective. This task is usually given to the supporting element during the offensive and as a counterattack option for the reserve during defensive operations. An attack by fire is not done in conjunction with a maneuveriing force. When assigning this task, the commander must specify the intent of fire--either to destroy, fix, or suppress.

b. <u>Example</u>:

PRIMARY ATTACK
BY FIRE POSITION

PROPOSED ATTACK
BY FIRE POSITION
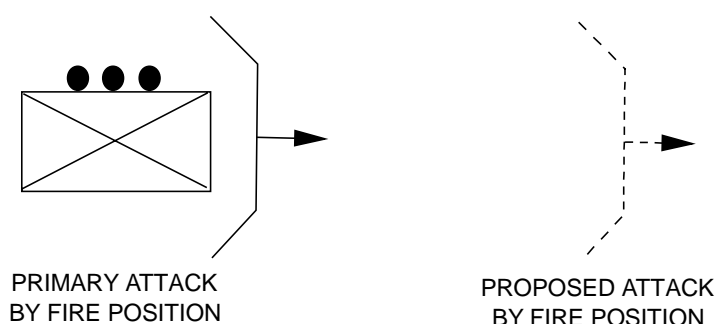
24. <u>Support by Fire Position</u>

a. <u>Definition</u>. A tactical task in which a maneuver element moves to a position on the battlefield where it can engage the enemy by direct fire to support a maneuvering force by either support by fire by overwatching or by establishing a base of fire. The maneuver element does not attempt to maneuver to capture enemy forces or terrain.

b. <u>Example</u>:

PRIMARY SUPPORT
BY FIRE POSITION

PROPOSED SUPPORT
BY FIRE POSITION

PRACTICE EXERCISE III-12

___ 1. A specific direction or route   A. Route of march
         that the main effort or center
         of mass of the unit will follow.   B. Direction of attack
         The unit is restricted, required
         to attack as indicated, and is   C. Axis of advance
         not normally allowed to bypass
         the enemy. It is used primarily   D. Bridgehead line
         in counterattacks.
                                             E. Limit of advance

___ 2. The prescribed course to be   F. Infiltration lane
         traveled from a specific point
         of origin to a specific desti-
         nation.

___ 3. The limit of the objective area
         in the development of the bridge-
         head.

___ 4. An easily recognized terrain
         feature beyond which attacking
         elements will not advance.

___ 5. A line of advance assigned for
         the purpose of control; often a
         road or group of roads or a
         designated series of locations
         extending in the direction of
         the enemy.

___ 6. The movement through or into an
         area or territory occupied by
         either friendly or enemy troops
         or organizations. The movement
         is made either by small groups
         or by individuals at extended or
         irregular intervals.

DISCUSSION III-12

B___ 1. A specific direction or route   A. Route of march
        that the main effort or center
        of mass of the unit will follow.   B. Direction of attack
        The unit is restricted, required
        to attack as indicated, and is   C. Axis of advance
        not normally allowed to bypass
        the enemy. It is used primarily   D. Bridgehead line
        in counterattacks.
                                           E. Limit of advance

A__ 2. The prescribed course to be   F. Infiltration lane
        traveled from a specific point
        of origin to a specific desti-
        nation.

D___ 3. The limit of the objective area
        in the development of the bridge-
        head.

E___ 4. An easily recognized terrain
        feature beyond which attacking
        elements will not advance.

C___ 5. A line of advance assigned for
        the purpose of control; often a
        road or group of roads or a
        designated series of locations
        extending in the direction of
        the enemy.

F___ 6. The movement through or into an
        area or territory occupied by
        either friendly or enemy troops
        or organizations. The movement
        is made either by small groups
        or by individuals at extended or
        irregular intervals.

CHAPTER IV

TACTICAL CONTROL MEASURES FOR DEFENSIVE OPERATIONS

A. Overview of Defensive Operations

B. Tactical Control Measures for Defensive Operations

    1. Forward Edge of the Battle Area (FEBA)
    2. Forward Line of Own Troops (FLOT)
    3. Decisive Engagement
    4. Area of Influence
    5. Area of Interest
    6. Security or Covering Force Area
    7. Main Battle Area
    8. Rear Area
    9. Defense Area
    10. Battle Position
    11. Engagement Area
    12. Alternate Positions
    13. Supplementary Positions
    14. Start Point
    15. Release Point

C. Obstacles

    1. Abatis
    2. Antitank Ditch
    3. Booby Traps
    4. Fortified Line
    5. Mines
    6. Wire
    7. Line of Contact
    8. Strongpoint

D. Obstacle Intent Planning Graphics

    1. Obstacle Zones, Belts, Groups and Restricted Areas

A. <u>Overview of Defensive Operations</u>

In general, the purpose of the defense is to deny the enemy his purpose in attacking. Specifically, a defense is established:

(1) To destroy enemy forces.

(2) To regain or control terrain or prevent the enemy's capture of terrain.

(3) To gain time without surrendering ground.

(4) To economize, to allow the concentration of forces elsewhere.

(5) When the force is too weak to attack or must halt its advance to replenish.

(6) To develop more favorable conditions for offensive operations.

Compared to the offense, the defense is generally the less decisive form of war. While the defense can deny success to the enemy, rarely can it assure victory. In some cases, however, terrain that is critical to the enemy or cannot be bypassed offers such advantage that a commander may prefer the defense in order to force the enemy to attack from a disadvantage.

The basic concept for defensive doctrine consists of:

(1) The use of security forces forward and in depth to delay and disorganize the enemy's advance and to deceive him as to the location of the main defensive positions.

(2) A main battle area organized in depth with strong, mutually supporting positions to be held tenaciously.

(3) The use of counterattacks to destroy or repulse enemy penetrations of the defense area. The integrity of the defensive sector is maintained by a combination of fighting in place and counterattacking.

(4) We strive to create opportunities to ATTACK THE ENEMY THROUGHOUT THE DEPTH OF OUR DEFENSE.

LEARNING ACTIVITY IV-B-1

B. Tactical Control Measures for Defensive Operations. There are some basic definitions and control measures which must be mastered prior to studying basic defensive organization. The first is the FORWARD EDGE OF THE BATTLE AREA or FEBA.

1. Forward Edge of the Battle Area (FEBA)

a. Definition. The foremost limits of a series of areas in which ground combat units are deployed, excluding the areas in which the covering or screening forces are operating, designed to coordinate fire support, the positioning of forces, or the maneuver of units.

b. Description. The area between specified coordinating points on lateral boundaries. The coordinating points which indicate the forward edge of the battle area will be labeled "FEBA."

c. Example

FEBA ⊗   ⊗ FEBA

GENERAL TRACE

FEBA⊗ - - - - - - - - ⊗FEBA

PROPOSED TRACE

FEBA ⊗ —————— ⊗ FEBA

SPECIFIC TRACE
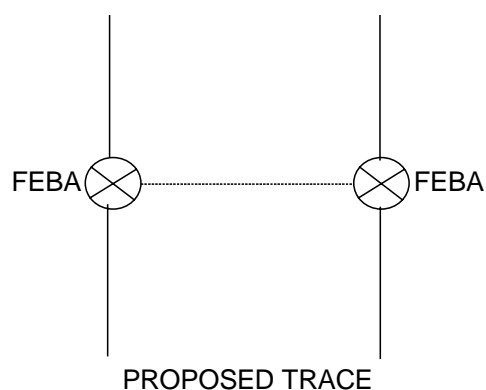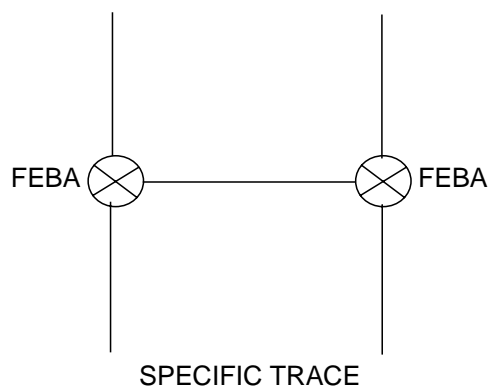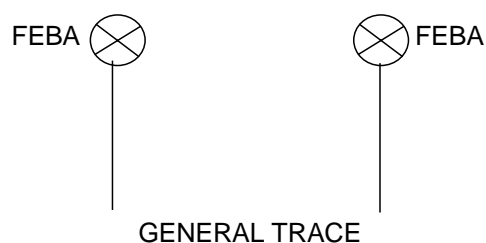
LEARNING ACTIVITY IV-B-2

    Another important control measure is the FORWARD LINE OF OWN TROOPS.

    2.   Forward Line of Own Troops (FLOT)

        a. Definition. A line which indicates the most forward positions of friendly forces in any kind of military operations at a specific time. The FLOT may be at, beyond, and short of the FEBA, depicting the nonlinear battlefield. The FLOT normally identifies the forward location of covering and screening forces. An enemy FLOT indicates the forward most position of hostile forces.

        b. Example
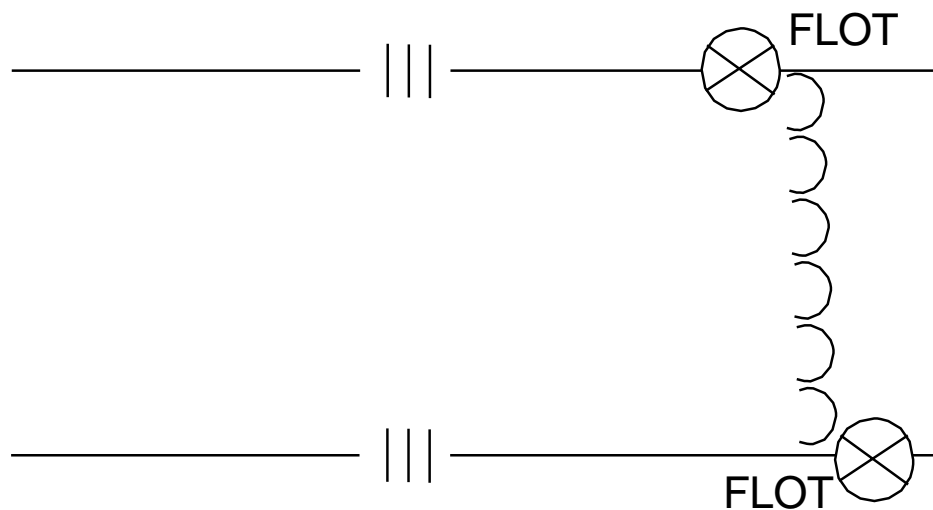
The term "DECISIVE ENGAGEMENT" is used extensively in the discussion of defensive operations.

       3. <u>Decisive Engagement</u>. A decisive engagement is an engagement in which a unit is considered fully committed and cannot maneuver or extricate itself. In the absence of outside assistance, the action must be fought to a conclusion and either won or lost with the forces at hand.

PRACTICE EXERCISE IV-1

1. The _____ marks the forward limits of the main ground forces, excluding reconnaissance, covering and screening forces.

2. The _____ could be used to mark the limits of a division's reconnaissance forces.

3. When a unit is fully committed and cannot maneuver or extricate itself, it is considered _____.

DISCUSSION IV-1

1. The <u>forward edge of the battle area</u> marks the forward limits of the main ground forces, excluding reconnaissance, covering and screening forces.

2. The <u>forward line of troops</u> could be used to mark the limits of a division's reconnaissance forces.

3. When a unit is fully committed and cannot maneuver or extricate itself, it is considered <u>decisively engaged</u>.

LEARNING ACTIVITY IV-B-4

    Let's take a look at the organization of the sector of defense
and the control measures contained therein. While our focus centers
on the battalion and the regiment, we will first examine the
organization of a division sector of defense to better understand
the part we play as a subordinate battalion.

    The first term we must understand is AREA OF INFLUENCE.

        4. Area of Influence. A geographical area where in a
commander is directly capable of influencing operations by maneuver
or fire support systems normally under the commander's command and
control. It includes both organic and supporting combat power, to
include joint, multinational or interagency assets.

LEARNING ACTIVITY IV-B-5

5. Area of Interest

        Now, even though the commander cannot influence
activi- ties outside of his area of influence, he is, no doubt, very
interested in the status of both enemy and friendly forces on his
flanks and to his distant front. This brings us to the definition
of the AREA OF INTEREST.

a. Definition. The area of interest is an area of concern to the
commander, including the area of influence, areas adjacent thereto,
and extending into enemy territory to the objective of current or
planned operations. This area also includes areas occupied by enemy
forces who could jeopardize the accomplishment of the mission.
Forty-eight hours of march is often used as a rule of thumb for
determining the extent of the area of interest.

        Typically, if we superimpose the area of interest
over the area of influence, it could look like this:

b. Example.
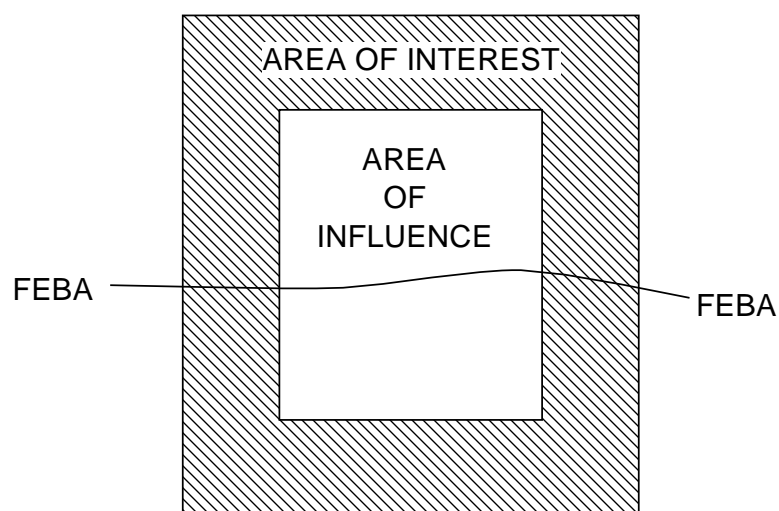
LEARNING ACTIVITY IV-B-6

6.   Security or Covering Force Area

Now that we understand the area of interest and the area of influence and how they help determine the size and shape of the sector of defense, we can begin to develop the sector of defense.

In order to establish a good defense in depth it is necessary to divide the sector of defense into several subdivisions, assigning different units to those areas.

The first area to examine is the SECURITY AREA or COVERING FORCE AREA. At AWS we will refer to this area as the security area.

a. Definition. The security or covering force area is the area forward of the forward edge of the battle area (FEBA) out to the forward positions initially assigned to the covering forces. It is here that the covering forces execute assigned tasks.

b. Description. Within the security area, forces from several echelons of command may be assigned. Only a Marine division or larger force will assign a covering force. Regiments and battalions may assign security forces to operate under their command. Phase lines are normally employed to separate forces operating in the security area. Forces assigned to operate in the security area are assigned the mission to either screen, guard, or cover. (See FM 101-5-1 for definitions of security missions.)

c. <u>Example.</u>   If we designate our security or covering force area, our division sector of defense now looks like this:

FLOT

SECURITY OR
COVERING FORCE AREA

FLOT

BHL
(PL DOG)

FEBA

BHL
(PL DOG)

FEBA
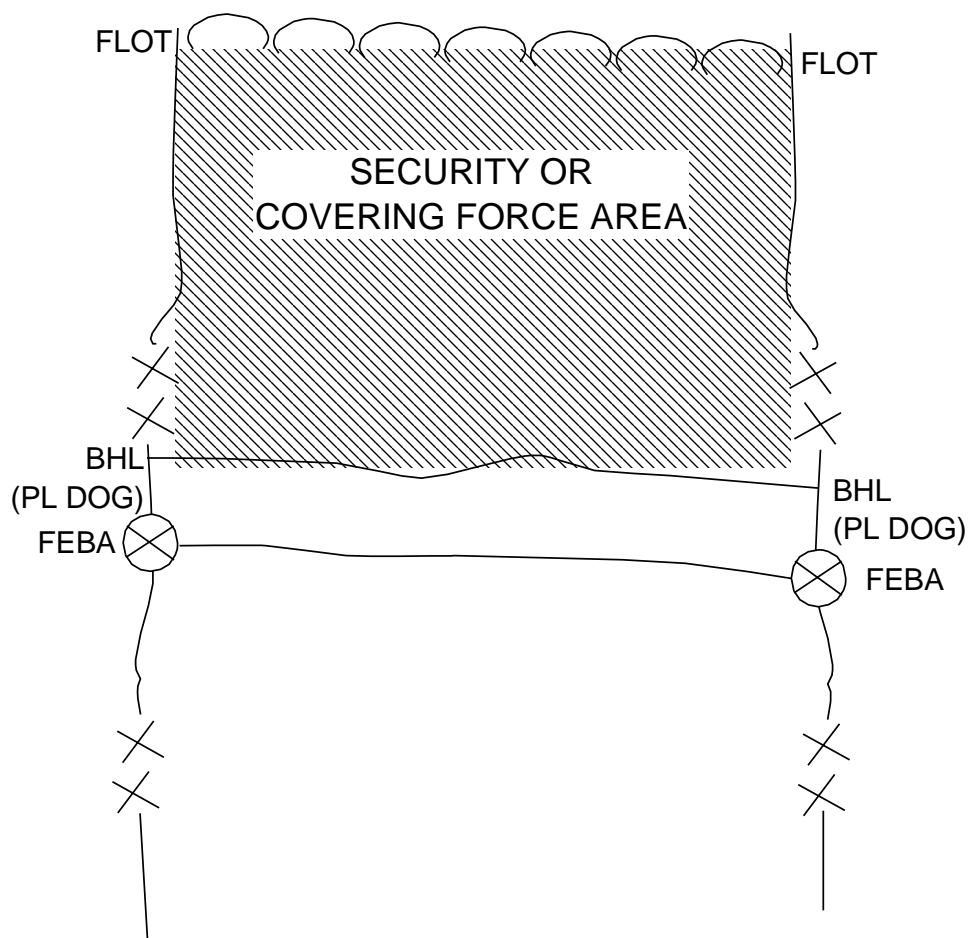
        The covering force will operate inside the security area from the forward line of troops (FLOT) to the handover line. The handover line is a control feature, preferably following easily defined terrain features, at which responsibility for the conduct of combat operations is passed from one force to another. The handover line is usually a phase line and is normally located forward of the FEBA.

        The forward boundary of the covering force or security area can be the FLOT or another phase line.

PRACTICE EXERCISE IV-2

1. Forces operating in the security area are assigned the mission to either _____, _____, or _____.

2. A _____ is used to delineate where responsibility for the conduct of combat operations passes from one unit to another.

3. The covering force area is the same as the _____. The covering force area is located _____ of the FEBA.

DISCUSSION IV-2

1. Forces operating in the security area are assigned the mission to either <u>screen</u>, <u>guard</u>, or <u>cover</u>.

2. A <u>handover line</u> is used to delineate where responsibility for the conduct of combat operations passes from one unit to another.

3. The covering force area is the same as the <u>security area</u>. The covering force area is located <u>forward</u> of the FEBA.

LEARNING ACTIVITY IV-B-7

    7. <u>Main Battle Area</u>

        The next area of significance is the MAIN BATTLE AREA.

a. <u>Definition.</u> The main battle area is the portion of the battlefield in which the decisive battle is fought to defeat the enemy. For any particular command, the main battle area extends rearward from the forward edge of the battle area to the rear boundary of the command's subordinate units.

b. <u>Description.</u> Each echelon of command will have a main battle area. If we look at the division and its subordinate commands, the main battle areas could very well look like this:

c. <u>Example.</u>
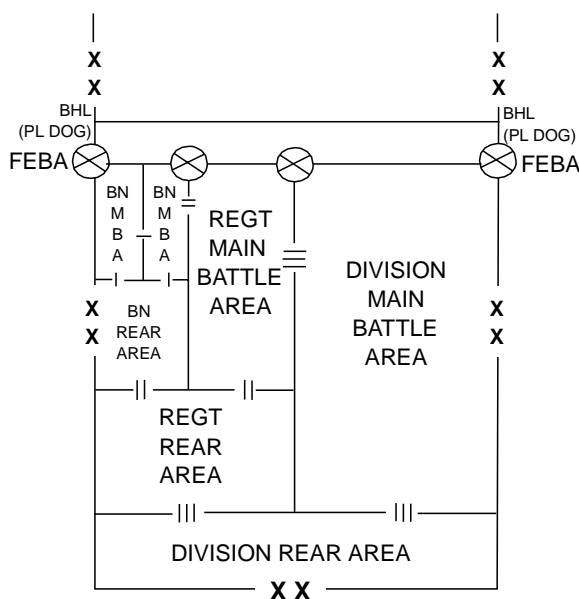
        Notice that each battle area is bounded forward by the FEBA, regardless of the echelon. The battalion main battle areas (MBAs) shown in the diagram are subsets of the regimental MBA. The regimental MBA is a subset of the division's MBA. The division's MBA covers the entire area from the FEBA to the boundary between the division's rear area and the forward regiments.

PRACTICE EXERCISE IV-3

1. By doctrine, the decisive defensive battle is fought in the ___
_____.

2. A unit's main battle area is bounded forward by the _____ and
bounded in the rear by the _____ boundaries of its forward
subordinate units.

<u>DISCUSSION IV-3</u>

1.   By doctrine, the decisive defensive battle is fought in the <u>main battle area.</u>

2.   A unit's main battle area is bounded forward by the <u>FEBA</u> and bounded in the rear by the <u>rear</u> boundaries of its forward subordinate units.

LEARNING ACTIVITY IV-B-8

    8. Rear Area

        As you can see from the illustration of the main battle area, each echelon of command, down to the battalion level, has a REAR AREA. This is the third zone in our three zone defense framework.

a. Definition. The rear area is for any particular command, the area extending forward from its rear boundary to the rear of the area of responsibility of the next lower level of command. This area is provided primarily for the performance of combat service support functions.

        What causes confusion occasionally is that if you look at the illustration you will notice that the regimental rear area is part of the division main battle area and that the battalion rear area is part of the regimental main battle area and so on and so on. However, it will start to make sense if you study it for a while.

b. Example.
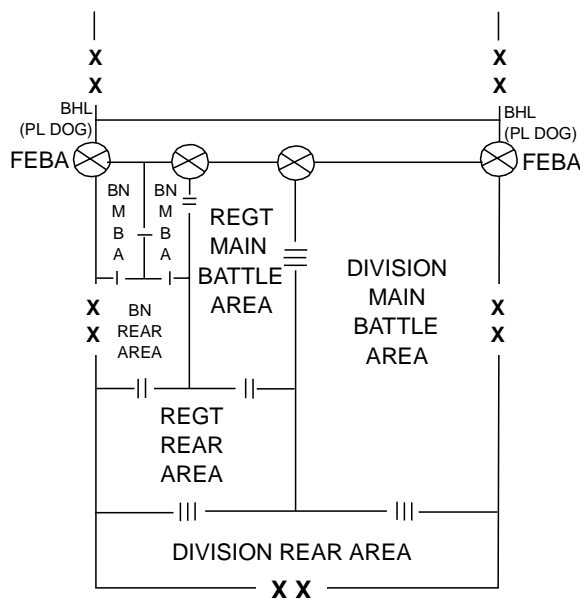
PRACTICE EXERCISE IV-4

Label the areas in the division sector of defense below.
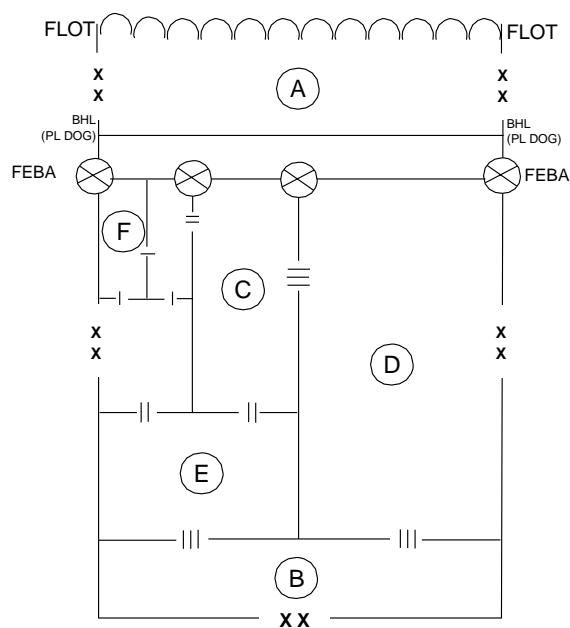
A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

DISCUSSION IV-4

Label the areas in the division sector of defense below.
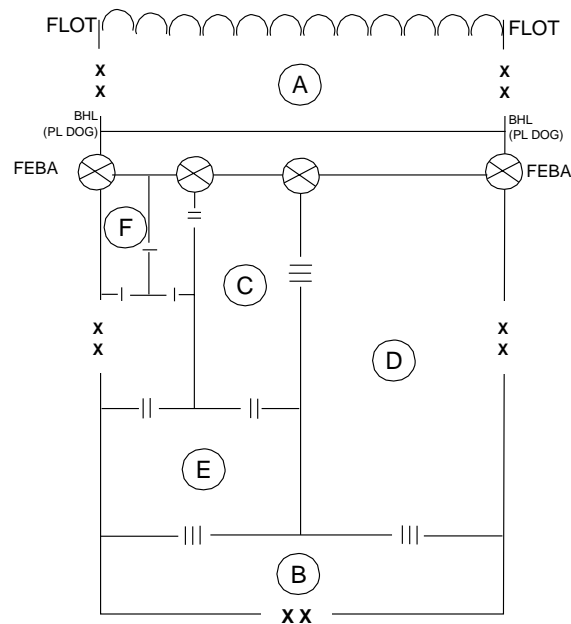
A. Security Area
B. Division Rear Area
C. Regimental Main Battle Area
D. Division Main Battle Area
E. Regimental Rear Area
F. Battalion Main Battle Area

Remember that the battalion MBA is a subset of the regimental MBA, etc.

<u>LEARNING ACTIVITY IV-B-9</u>

      9. <u>Defense Area</u>

        The combination of a unit's MAIN BATTLE AREA and its REAR AREA is its DEFENSE AREA.

        Joint Pub 1-02 defines the defense area as follows: "For any particular command, the area extending from the forward edge of the battle area (FEBA) to its rear boundary. It is here that the decisive defensive battle is fought."

        Our desire in the Marine Corps is to fight the decisive defensive battle in the main battle area. We are prepared to fight in the rear area, but we prefer to be "decisive" in the MBA.

PRACTICE EXERCISE IV-5

1. The combination of a unit's main battle area and its rear area is its _____ .

2. Label the division sector of defense below.
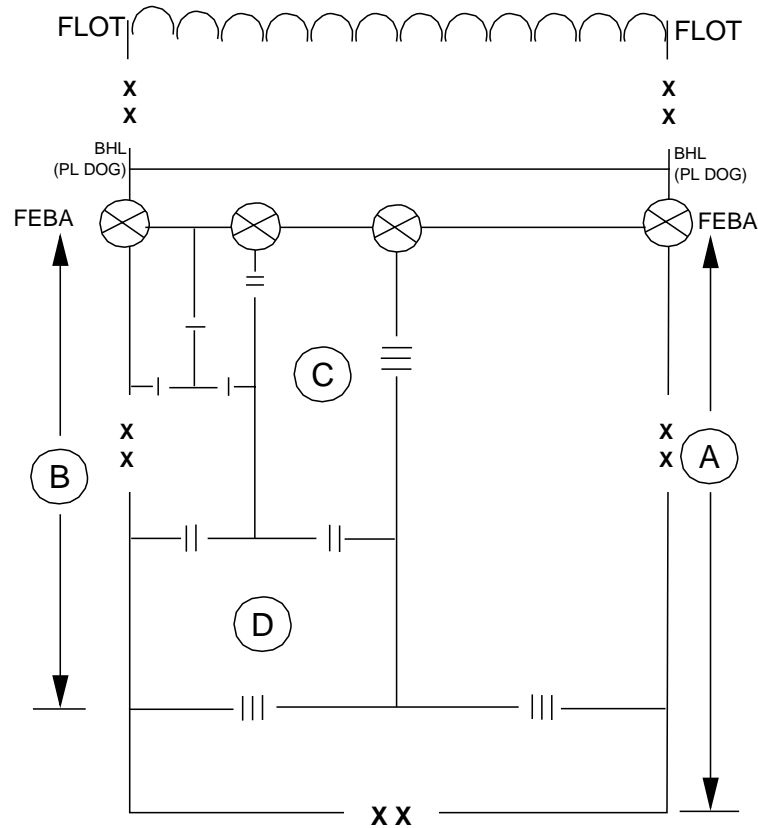
A. _____

B. _____

C. _____

D. _____

DISCUSSION IV-5

1. The combination of a unit's main battle area and its rear area is its <u>defense area</u>.

2. Label the division sector of defense below.

```
        FLOT⌒⌒⌒⌒⌒⌒⌒⌒⌒⌒⌒⌒FLOT
              X                    X
              X                    X
        BHL                      BHL
        (PL DOG)                 (PL DOG)
   FEBA  ⊗      ⊗      ⊗      ⊗ FEBA
                ≡              ‖
                            ‖
                ┬        ⊘ C ≡
            ⊣‖⊢           ≡
         X                    X
         X  B              X  (A)
              ┤‖├    ┤‖├
                (D)
              ┤‖‖├        ┤‖‖├
                   X X
```
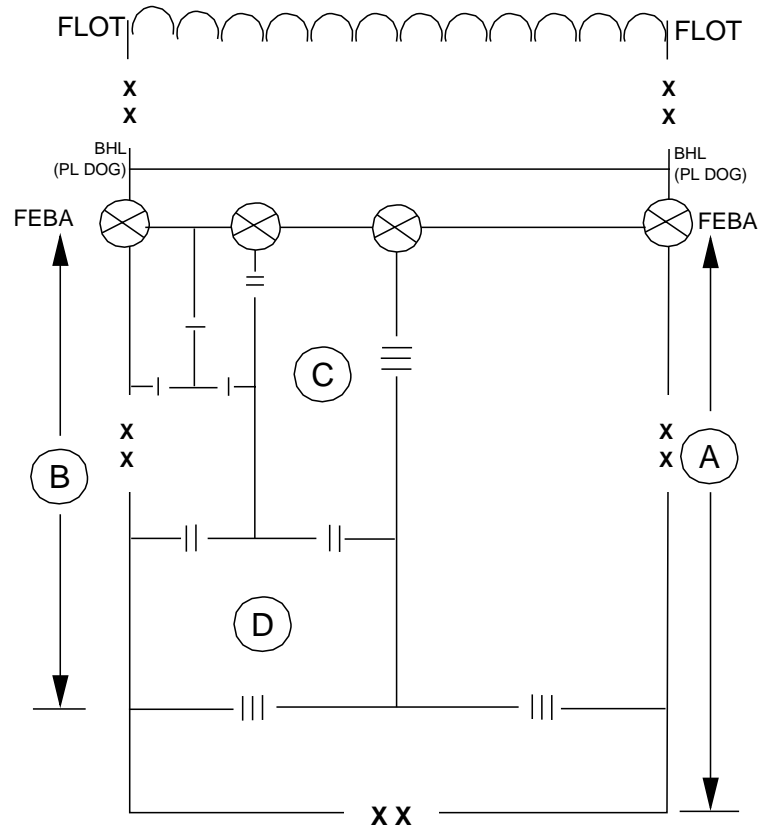
A. <u>Division Defense Area</u>
B. <u>Regimental Defense Area</u>
C. <u>Regimental Main Battle Area</u> or <u>Battalion Defense Area</u>
D. <u>Regimental Rear Area</u>

LEARNING ACTIVITY IV-B-10

    In looking briefly at the defense and focusing on how we can hold terrain, let's look at the control measure that attempts to mass combat power on a specific avenue of approach.

    10. Battle Position (BP)

        a. Definition. A defensive location oriented on the most likely enemy avenue of approach from which a unit may defend or attack. Such units can be as large as battalions and as small as platoons. A unit assigned a BP is located within the general outline of the BP. A Battle Position graphic control measure may be used independently or in combination with sectors. Security, combat support, and combat service support forces may operate outside a BP to provide early enemy detection and all-around security. For Attack Helicopters, an area designated in which they can maneuver and fire into a designated area or engage targets of opportunity.

        b. Description. A battle position symbol will consist of a solid black line broken once in rear of the position as it faces the enemy. The unit symbol will be placed in the break.

        (1) Battalion battle positions may be uniquely designated by number. Proposed positions may be numbered sequentially with occupied positions.

        (2) Company battle positions may be designated a number. Proposed positions may be numbered sequentially with occupied positions.

        (3) Within a battle position, subordinate units may be assigned smaller BPs.

        (4) Platoon battle positions are designated by unit SOP.

        c. Example of Primary Battle Positions.
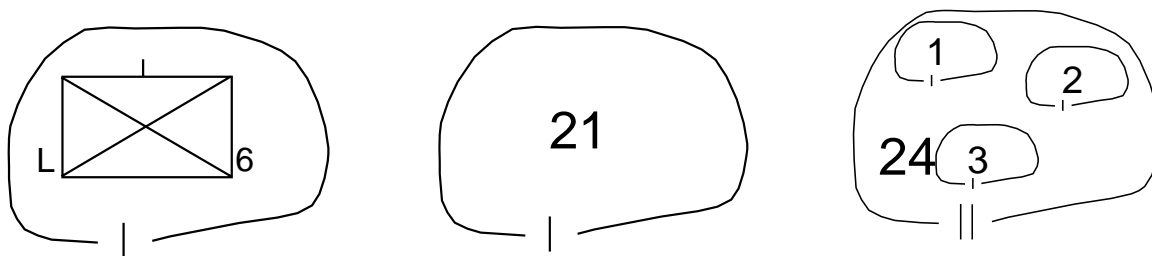
        d. Employment Considerations. The use and positioning techniques of battle positions will be covered in detail in a future class on defensive tactics. But there are some general rules to remember about using battle positions.

(1) The size of the graphic should be made keeping in mind the frontage required for the assigned unit's next subordinate units, e.g., a company battle position graphic should be constructed with the compiled frontage requirements of its platoons as a guide.

(2) A battle position symbol represents a positioning technique. As such, it becomes somewhat restrictive for the unit assigned. It could be considered as being the defensive equivalent of an axis used in the offense.

(3) The symbol indicates direction of force orientation.

LEARNING ACTIVITY IV-B-11

     11. <u>Engagement Area</u>. An area along an avenue of approach where the commander intends to contain and destroy an enemy force with the massed fires of all available weapons. The size and shape of the engagement area is determined by the relatively unobstructed intervisibility from the weapon systems in their firing positions and the maximum range of those weapons. Sectors of fire are usually assigned to subordinates to prevent fratricide.

     (a) Engagement areas are routinely identified by target reference points or by prominent terrain features around the area. Although engagement areas may also be divided into sectors of fire, it is important to understand that defensive systems are not designed around engagement areas, but rather around avenues of approach.

     (b) Engagement areas and sectors of fire are <u>not</u> intended to restrict fires or cause operations to become static or fixed; they are used only as a tool to concentrate fires and to optimize their effects.

     <u>Example</u>: Engagement Area
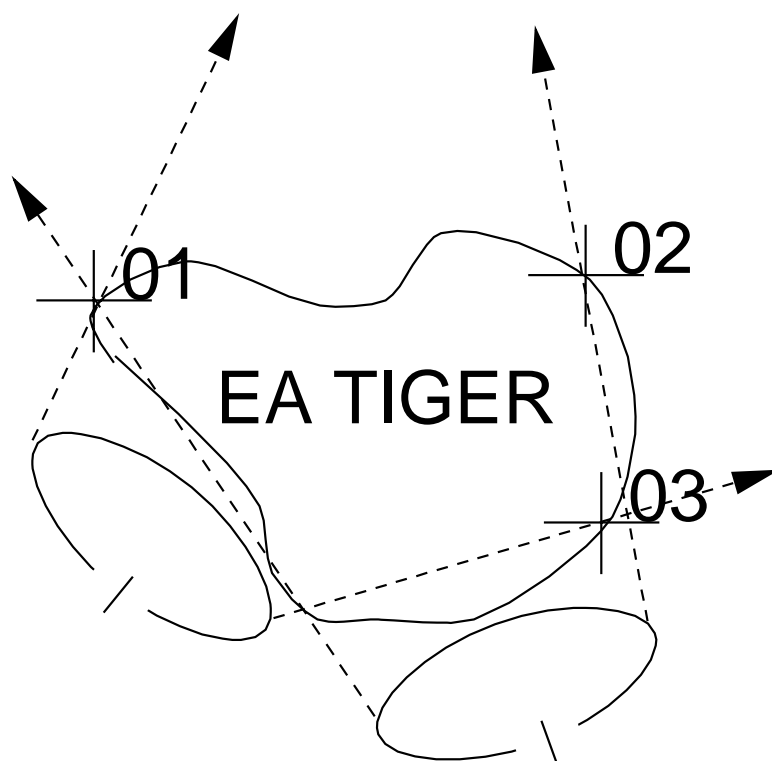
LEARNING ACTIVITY IV-B-12

    12.   Alternate Position

      a. Definition.   The position given to a weapon, unit, or individual to be occupied when the primary position becomes untenable or unsuitable for carrying out its task. The alternate position is located so that the individual can continue to fulfill his original task.

      b. Description. An alternate position symbol consists of a circular, dashed, black line with the unit symbol placed in a break in the rear of the position as it faces the enemy.

      c. Example
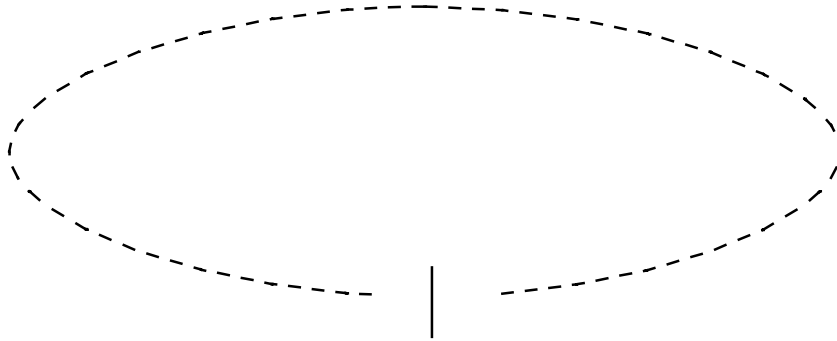
13. <u>Supplementary Position</u>

        a. <u>Definition</u>. That location which provides the best
sectors of fire and defensive terrain along an avenue of approach
other than the primary avenue the enemy is expected to attack along,
for example, a flank avenue of approach. A location which best
provides the best means to accomplish a task that cannot be
accomplished from the primary or alternate positions.

        b. <u>Description</u>. A supplementary position symbol
consists of a circular, dashed, black line with the unit symbol in a
break in the rear of the position as it faces the direction it is
meant to oppose.

        c. <u>Example</u>
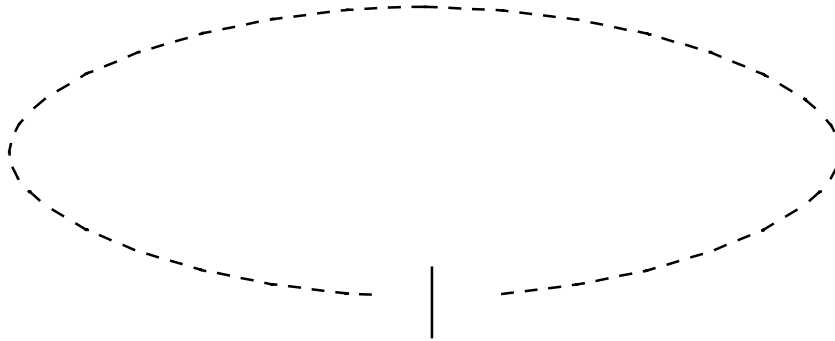
LEARNING ACTIVITY IV-B-14

14. Start Point

        a. Definition. A clearly defined initial control point
on a route at which specified elements of a column of personnel,
ground vehicles, or flight of aircraft come under the control of the
commander having responsibility for the movement.

        b. Description. A box with an attached arrowhead and SP
(plus a number if more than one) inside the box. The arrowhead
points to the exact location where the crossing will take place.

        c. Example

        d. Employment Considerations. Used extensively in
planning for counterattacks in the defense, night attacks in the
offense, and patrolling.

LEARNING ACTIVITY IV-B-15

      15. <u>Release Point</u>

         a. <u>Definition</u>

            (1) A clearly defined control point on a route at which specified elements of a column of ground vehicles or flight of aircraft revert to their respective commanders, each one of these elements continuing its movement towards its own appropriate destination.

            (2) In dismounted attacks, especially at night, that point at which a commander releases control of subordinate units to their commanders/leaders.

         b. <u>Description</u>. A box with an attached arrowhead and RP (plus a number if more than one) inside the box. The arrowhead points to the exact location where the crossing will take place.

         c. <u>Example</u>

         d. <u>Employment Considerations</u>. Used extensively in planning in the defense, night attacks in the offense, and patrolling.

PRACTICE EXERCISE IV-6

1. A defensive disposition which is oriented on the most likely avenue of enemy approach is a _____.

2. Depict a battle position for Co C, 1/5.

3. Depict a company battle position (numbered 21).

4. Depict an engagement area.

セ

DISCUSSION IV-6

1. A defensive disposition which is oriented on the most likely enemy avenue of approach is a battle position.

2. Depict a battle position for Co C, 1/5.
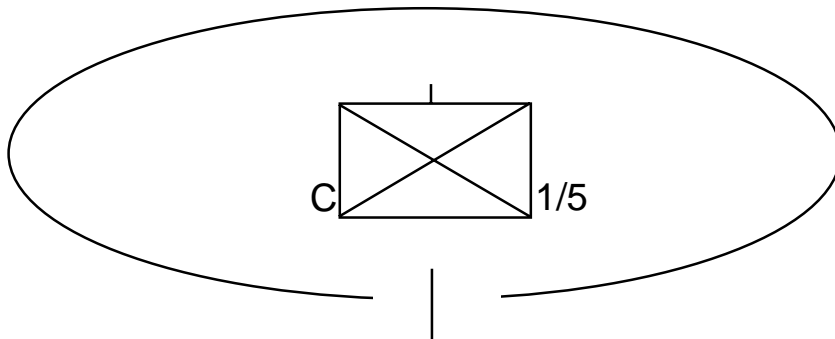
3. Depict a company battle position (numbered 21).
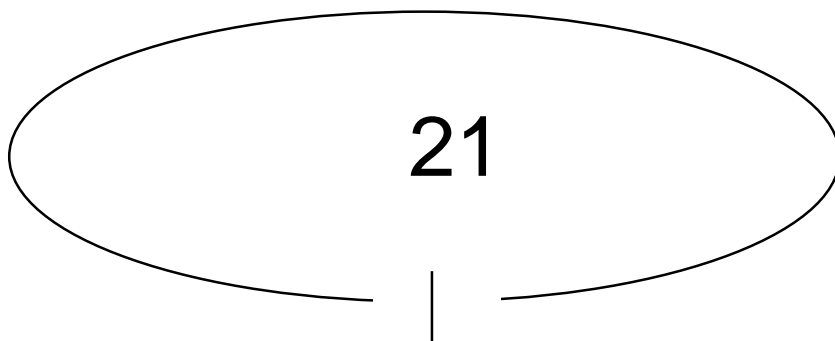
4. Depict an engagement area (CODENAME RED).
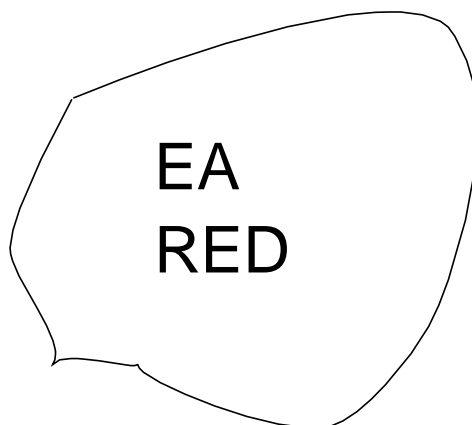
C. Obstacles

    Obstacles can be any natural or man-made obstruction that canalizes, delays, restricts, or diverts movement of force. The effectiveness of an obstacle is enhanced considerably when covered by fire. Obstacles can include abatis, antitank ditches, blown bridges, built-up areas, minefields, rivers, road craters, terrain, and wire. Obstacles are classified as either existing or reinforcing.

    Existing obstacles are those natural or cultural restric-tions to movement that are part of the terrain when battle planning begins.

    Reinforcing obstacles are obstructions specifically con-structed, emplaced, or detonated to tie together, strengthen, and extend existing obstacles. (FM 101-5-1)

    Example: Obstacle Line

LEARNING ACTIVITY IV-C-1

      1. <u>Abatis</u>. A vehicular obstacle constructed by felling trees 1-2 meters above the ground on both sides of the road so that they fall, interlocked, toward the expected direction of the enemy approach. The trees should remain attached to the stumps, be at least 45-degree angle to the roadway, and the obstacle itself should be at least 75 meters in depth to be most effective. (FM 101-5-1)

      <u>Example</u>:

2. <u>Antitank Ditch</u>

    <u>Example</u>:

    Antitank Ditch   Teeth point toward enemy.
                                      Rectangle around symbol used
                                      only when not drawn to scale
                                      in actual location.

    Under Construction   Completed
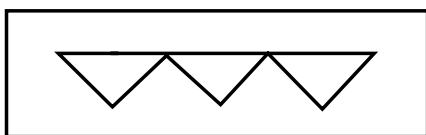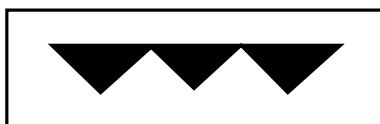
PRACTICE EXERCISE IV-7

1. For an obstacle to be most effective, it must be _____
    _____.

2. A _____ is made by blocking a road with felled trees.

3. Depict a completed antitank ditch.

4. Depict an abatis.

SPT

DISCUSSION IV-7

1. For an obstacle to be most effective, it must be <u>covered by fire</u>.

2. A <u>abatis</u> is made by blocking a road with felled trees.

3. Depict a completed antitank ditch.

4. Depict an abatis.

<u>LEARNING ACTIVITY IV-C-3</u>

   3. <u>Booby Trap</u>. A device designed to kill or maim an unsuspecting person who disturbs an apparently harmless object or performs a normally safe act.

    <u>Example</u>
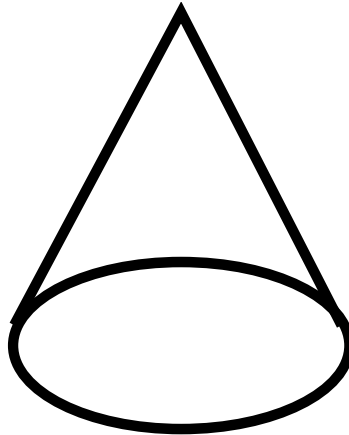
LEARNING ACTIVITY IV-C-4

      4. Fortified Line

         Example
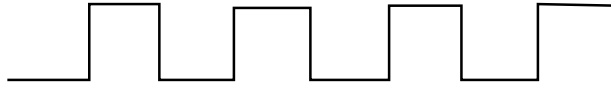
LEARNING ACTIVITY IV-C-5

    5.   Mines

       Examples

Antipersonnel Mine

Antitank Mine

Directional Mine
(Arrow points in the direction of main effect)
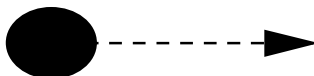
Mine of Unspecified or Unknown Type
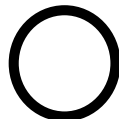
Planned Minefield Consisting of Unspecified Mines

Completed Minefield Consisting of Unspecified Mines

Scatterable Minefield
(DTGs Used for Self-Destruct Mines)

S

●●●

160200Z

Nuisance Minefield

M

M   M

M
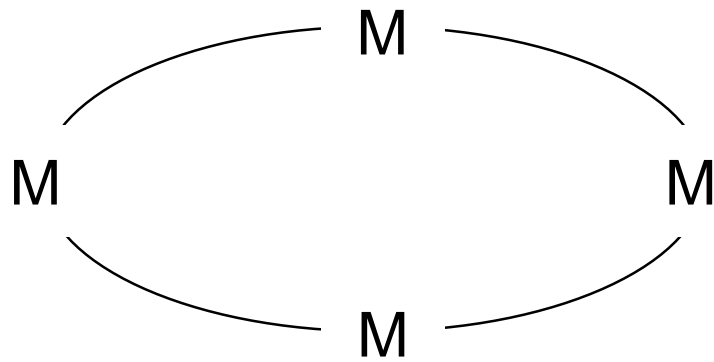
Protective Minefield

● ● ● ● ● ● ● ●

LEARNING ACTIVITY IV-C-6

      6. <u>Wire</u>

          <u>Example</u>

               ✕✕✕✕✕✕✕✕✕✕✕✕

PRACTICE EXERCISE IV-8

1. Depict the following:

    An enemy fortified line (one-color overlay)

    An antitank mine

    A directional mine

    An unspecified mine

    Planned scatterable minefield
    (self-destruct time 131200ZNov9_)

    Completed antitank minefield

    A fortified line with wire and antipersonnel mines

DISCUSSION IV-8

1. Depict the following:

    An enemy fortified line (one-color overlay)

    An antitank mine

    A directional mine

    An unspecified mine

    Planned scatterable minefield
    (self-destruct time 131200ZNov9_)

    S

    131200ZNov98
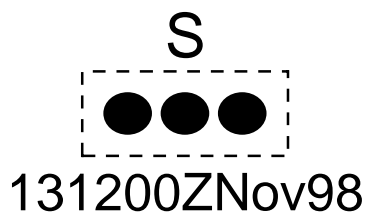
    Completed antitank minefield

    A fortified line with wire and antipersonnel mines
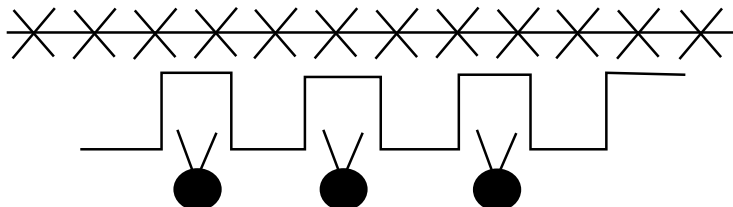
LEARNING ACTIVITY IV-C-7

      7. <u>Line of Contact</u>

         a. <u>Definition</u>. A general trace delineating the location where two opposing forces are engaged. (FM 101-5-1)

         b. <u>Example</u>
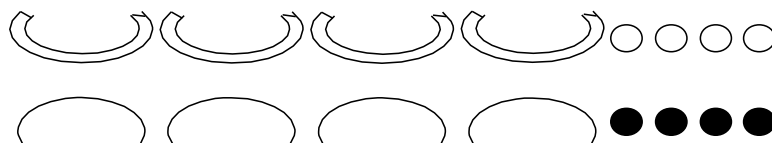
Double lines indicate enemy forces. Dots represent lightly held or patrolled areas.

      8. <u>Strongpoint</u>

        a. <u>Definition</u>. A key point in a defensive position, usually strongly fortified and heavily armed with automatic weapons, around which other positions are grouped for its protection. (Joint Pub 1-02)

        b. <u>Example</u>

LETTER,
OR NAME
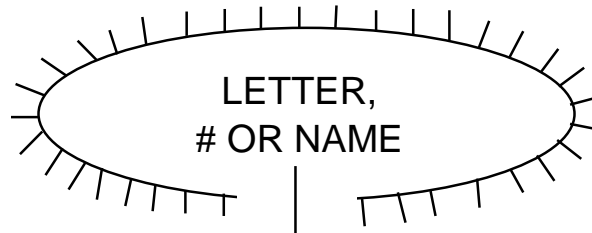
Symbol may have unit or size indicator or unique designation. Size indicators face away from anticipated enemy direction; it is equally fortified on all sides.

PRACTICE EXERCISE IV-9

1. A _____ is a general trace delineating the location where two opposing forces are engaged.

2. Depict an enemy company size strongpoint.

DISCUSSION IV-9

1. A <u>line of contact</u> is a general trace delineating the location where two opposing forces are engaged.

2. Depict an enemy company size strongpoint.
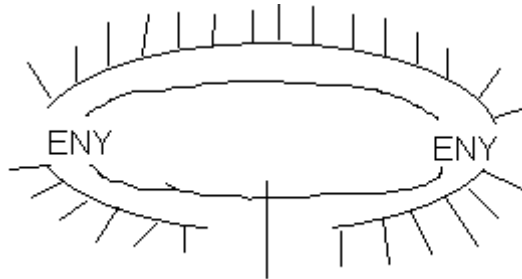
LEARNING ACTIVITY IV-D-1

D. Obstacle Intent Planning Graphics. Up until now our discussion of obstacles has dealt with particular types of obstacles. Higher levels of command, however, plan for the use of obstacles but are not concerned with the type of obstacles subordinates decide to employ. Higher level commanders are concerned with obstacle intent. They give guidance to their subordinates by indicating how they want tactical obstacles to support their scheme of maneuver. This obstacle intent gives the engineers the latitude to employ whatever existing and reinforcing obstacles they have available to accomplish the commander's intent.

1. Obstacle Zones, Belts, and Restricted Areas

a. Obstacle Zones. Areas within which the commander authorizes his subordinates to employ tactical obstacles. Normally, division designates zones to regiments. The zones do not normally cross unit boundaries. They are tactical control measures designated by an alpha character.

Example:

b. Obstacle Belts. Used by subordinate regiments as a control measure to focus the battle and to incorporate obstacles into their scheme of maneuver and fire support plan. The intent is to synchronize obstacle plans at all levels. A commander assigns an obstacle intent for the obstacle belt; e.g., distrupting, turning, blocking, fixing. Assigning a specific obstacle effect to a belt does not prevent subordinate commanders from employing the fulll range of tactical obstacles within the belt; however, the combined effect of the obstacles much achieve the assigned intent of the belt. They are designated by a number.

Example:

B

1

2
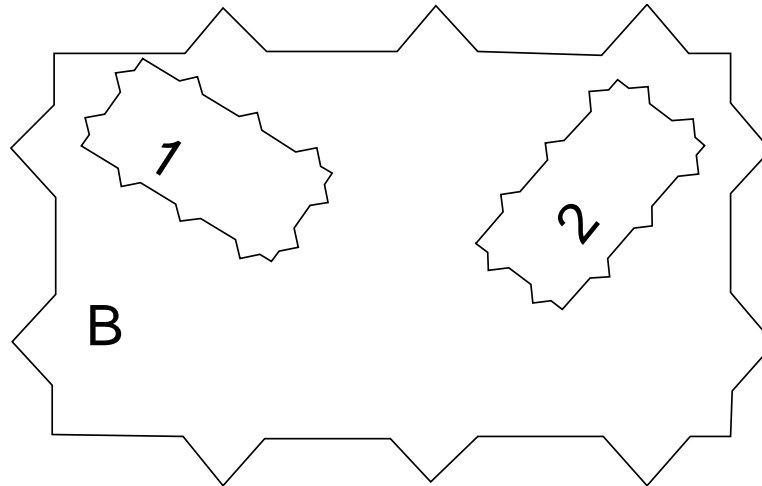
c. <u>Obstacle Groups</u>. Groups of one or more individual obstacles grouped to provide a specific obstacle effect. Unlike obstacle zones or belts, obstacle groups are not areas but are relative locations for <u>actual</u> obstacles. Within a given belt with an assigned intent, the commander can use any combination of group effects if the sum effect of all groups achieves the belt intent; e.g., a specific obstacle group may block a specific route; however, the overall intent of the bolt is to turn the enemy into an adjacent mobility corridor. They are designated by an alpha character.

Example:

(Belt)
B1

A

B
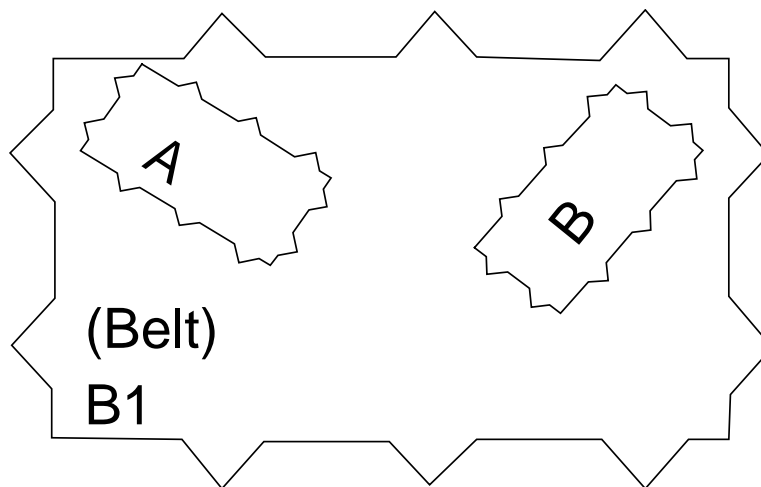
        d. <u>Obstacle Restricted Areas</u>. Areas within which the
commander has imposed some special restrictions on obstacle
employment. They are depicted the same as obstacle zones and
labeled as "obstacle restricted." The restrictions can be listed in
coordinating instructions as "Zone A restricted to FASCAM with short
duration fuze."

Obstacle Restricted
6th Mar
200900-
272100Z SEP

Obstacle Restricted
6th Mar
200900-
272100Z SEP
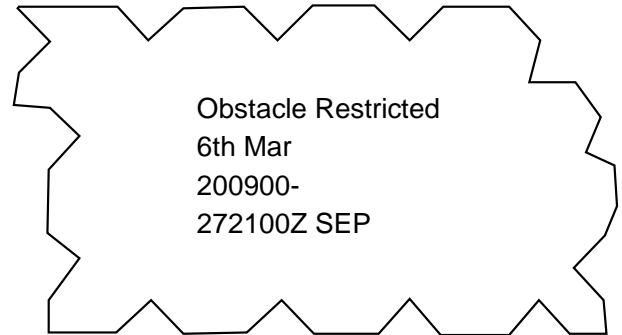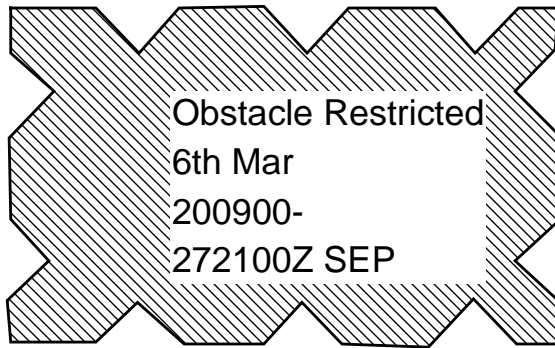
PRACTICE EXERCISE IV-D-1

1. A regimental commander would use _____ to focus the battle and incorporate obstacles into his scheme of maneuver and fire support plan.

2. Draw an obstacle restricted zone.

DISCUSSION IV-D-1

1. A regimental commander would use obstacle belts to focus the battle and incorporate obstacles into his scheme of maneuver and fire support plan.

2. Draw an obstacle restricted zone.

B

Obstacle Restricted-FASCAM Only
2d Mar
221300
271500 Z Sep
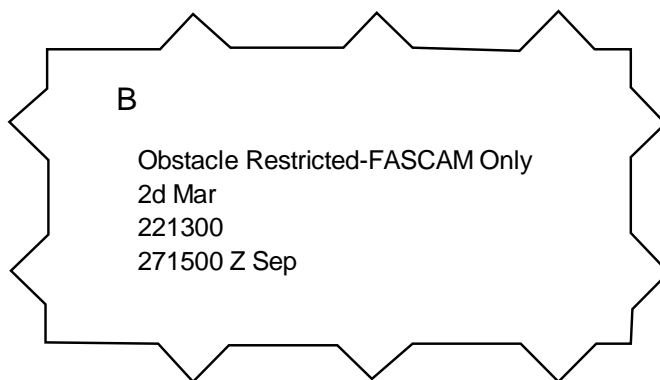
d. <u>Obstacle Intent</u>. Gives the engineer the latitude to use whatever existing or reinforcing obstacles he can based upon time, personnel, and conditions. Symbols are normally used in conjunction with belts. Arrows indicate direction of enemy movement.

<u>Examples</u>:

(1) Disrupt

(2) Turn

(3) Fix

(4) Block

PRACTICE EXERCISE IV-D-2

1. Draw an example of obstacle intent that would turn the enemy into an engagement area.

2. Draw an example of obstacle intent to fix a mechanized column to be destroyed by supporting arms.

3. Draw an example of obstacle intent to prevent an enemy from using a particular avenue of approach.
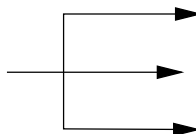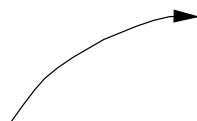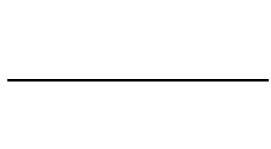
DISCUSSION IV-D-2

1. Draw an example of obstacle intent that would turn the enemy into an engagement area.
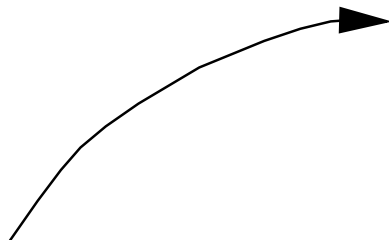
2. Draw an example of obstacle intent to fix a mechanized column to be destroyed by supporting arms.

3. Draw an example of obstacle intent to prevent an enemy from using a particular avenue of approach.
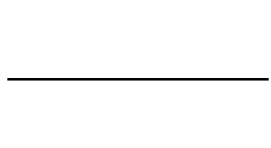
CHAPTER V

TACTICAL CONTROL MEASURES FOR FIRE SUPPORT

A. Overview of Combined Arms

B. Tactical Control Measures for Fire Support

    1. Coordinated Fire Line (CFL)
    2. Fire Support Coordination Line (FSCL)
    3. Free Fire Area (FFA)
    4. Restrictive Fire Area (RFA)
    5. No Fire Area (NFA)
    6. Restricted Fire Line (RFL)
    7. Airspace Coordination Area (ACA)
    8. Targets
    9. Multiple Targets
  10. Final Protective Fire (FPF)
  11. Direction of Fire
  12. Final Protective Line (FPL)

A. Overview of Combined Arms

        In order to maximize combat power, we must use all the
available resources to best advantage. To do so, we must follow a
doctrine of combine arms. Combined arms is the full integration of
arms in such a way that in order to counteract one, the enemy must
make himself more vulnerable to another. We pose the enemy not just
with a problem, but with a dilemma--a no-win situation.

        We accomplish combined arms through the tactics and
techniques we use at the lower levels and through task organization
at higher levels. In so doing, we take advantage of the
complementary characteristics of different types of units and
enhance our mobility and firepower. We use each arm for missions
that no other arm can perform as well; for example, we assign
aviation a task that cannot be performed equally well by artillery.
An example of the concept of combined arms at the very lowest level
is the complementary use of the automatic weapon and grenade
launcher within a fire team. We pin an enemy down with the high-
volume, direct fire of the automatic weapon, making him a vulnerable
target for the grenade launcher. If he moves to escape the impact
of the grenades, we engage him with the automatic weapon.--MCDP 1
Warfighting

B. Tactical Control Measures for Fire Support

        Fire support coordination measures are used to assign
responsibilities for the control of fires with maneuver. They have
two main purposes: to facilitate the rapid engagement of targets,
and to provide safeguards to friendly forces. These measures are
established by the maneuver commander, based on the recommendations
of his FSC. They are disseminated through fire support and maneuver
channels to higher, lower, and adjacent units. These measures are
graphically displayed by color, name, establishing headquarters, and
effective date/time group. The important thing to emphasize is that
fire support coordination is a command responsibility. Because of
the complexity of the modern battlefield the commander must delegate
much of his authority in regards to fire support coordination to his
FSC. Fire support coordination measures fall into two general
categories, PERMISSIVE and RESTRICTIVE.

        In the past restrictive fire support coordination measures
were depicted in red while permissive measures were depicted in
black. A recent change in doctrine now requires ALL FSC measures to
be depicted in black.

LEARNING ACTIVITY V-B-1

Permissive

1. Coordinated Fire Line (CFL)

a. Definition. A line beyond which conventional surface fire support means (mortars, field artillery, and naval gunfire) may fire at any time within the zone of the establishing headquarters without additional coordination.

b. Purpose. To expedite the attack of targets beyond the CFL without coordination with the maneuver commander in whose zone of action targets are located, and to provide the maneuver commander with an area within his zone of action where his troops can operate in safety from friendly artillery, mortars, and naval gunfire.

c. Establishing Authority. The senior GCE commander is responsible for selecting or approving a recommended CFL location within his zone of action or sector of defense, while supporting artillery commanders and artillery liaison officers at every echelon should make appropriate recommendations concerning its location. The location of the battalion's recommended CFL is forwarded to the infantry regiment through both infantry and artillery fire support coordination channels, where it is approved, consolidated, and forwarded to division level, as appropriate. A consolidated CFL may be established for the force as a whole.

d. Location. The location of the CFL is based on such factors as the scheme of maneuver, patrol plans, locations of security forces, and the troop safety desires of the maneuver commander. There is no requirement for the CFL to be placed on identifiable terrain; however, such things as the limits of ground observation, the location of the initial objectives in the offense, and the requirement for maximum flexibility in both maneuver and fire support should be considered.

e. Graphic Portrayal. The location of the CFL is graphically portrayed on maps, charts, and overlays by a dashed black line with letters "CFL" followed by the establishing headquarters in parentheses above the line and the effective date-time group below the line.

CFL (3D MAR)
031400Z

CFL (3D MAR)
031400Z

$9 \equiv 3$ $1 = 2$ $3 \times\!\!\!\times 2$
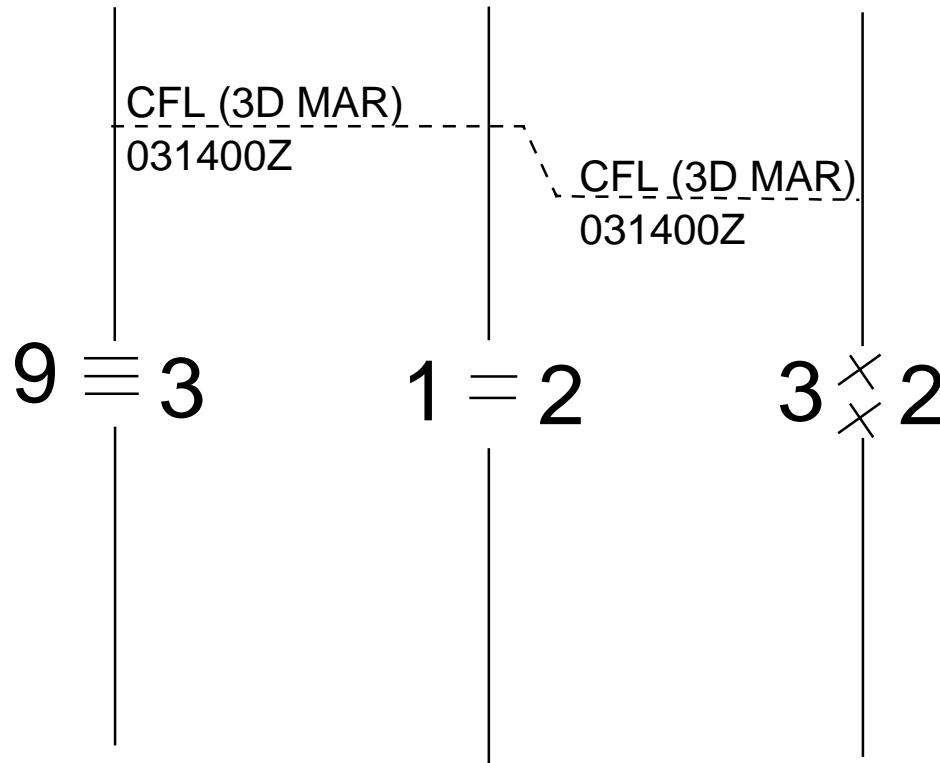
Coordinated Fire Line (CFL)

PRACTICAL EXERCISE V-1

1. The purpose of a coordinated fire line (CFL) is to expedite the attack of targets with fires from _____.

2. The lowest level headquarters that can establish a CFL is the infantry _____.

3. The CFL should be established along an easily identifiable terrain feature.

TRUE   FALSE

DISCUSSION V-1

1. The purpose of a coordinated fire line (CFL) is to expedite the attack of targets with fires from <u>artillery, mortars, and naval gunfire</u>. In other words, all surface delivered fires.

2. The lowest level headquarters that can establish a CFL is the infantry <u>battalion</u>.

3. FALSE. There is no requirement to place a CFL along an identifiable terrain feature.

LEARNING ACTIVITY V-B-2

>   2.   Fire Support Coordination Line (FSCL)
>
>   a.   Definition. STANAG 2099, Fire Coordination in the
> Land/Air Battle, defines the FSCL as a line, established by a force
> commander and coordinated with his appropriate supporting
> commanders, forward of which all forces may attack targets without
> danger to, or coordination with, the establishing force. All
> weapons systems are considered.
>
>   b.   U.S. Marine Corps Application. Marine Corps units
> operating as part of U.S. and Allied forces would employ the FSCL in
> accordance with the STANAG. In amphibious operations by Marine
> Corps units, the FSCL is defined as a line short of which aircraft
> (including those of the aviation combat element of the landing
> force) do not attack ground targets except on the request or
> approval of the appropriate ground commander, but beyond which they
> may attack targets without specific clearance from ground
> commanders.
>
>   c.   Purpose. The FSCL serves a threefold purpose:
>
>   (1) It facilitates the attack of targets beyond the
> FSCL.
>
>   (2) It provides ground commanders with sufficient
> control of aircraft to ensure troop safety, aircraft safety from
> ground delivered weapons, coordination of air strikes with ground
> maneuver and precludes unnecessary duplication of supporting fires.
>
>   (3) It provides aviation commanders, air control
> agencies, and pilots of aircraft with sufficient information to
> clearly delineate the degree of control or coordination required
> before aircraft can attack ground targets.
>
>   d.   Establishing Authority. The FSCL is established by
> the MAGTF commander in consultation with the ground combat element
> commander and either the tactical air commander or the aviation
> combat element commander, as appropriate. He may delegate this
> authority to the ground commander on occasion.
>
>   e.   Location. The FSCL should be located on
> identifiable terrain for recognition from the air. It should be
> located a short distance beyond the areas into which the
> establishing commander intends to send patrols or penetration forces
> (including helicopterborne forces), or in which he intends to
> maintain security forces. Other factors such as the scheme of
> maneuver, terrain, weather, type of attack aircraft, source of
> attack aircraft, and overall flexibility of maneuver and fire
> support should also be considered when selecting the location of the
> FSCL.

f. <u>Graphic Portrayal</u>. The location of the FSCL is graphically portrayed on fire support maps, charts, and overlays by a solid black line with the letters "FSCL" followed by the establishing headquarters in parentheses above the line and the effective date-time group below the line.

UNRESTRICTED AIRSTRIKES
UNRESTRICTED NAVAL GUNFIRE, MORTAR, AND ARTILLERY FIRES

FSCL (1MEF)

012140Z

FSCL (1MEF)

012140Z

RESTRICTED AIRSTRIKES

UNRESTRICTED NAVAL GUNFIRE, MORTAR, AND ARTILLERY

CFL (1ST MAR DIV)
022130Z

CFL (1ST MAR DIV)
022130Z

ALL AIRSTRIKES AND
FIRE MISSIONS COORDINATED

FEBA

FEBA

Fire Support Coordination Line (FSCL)

164
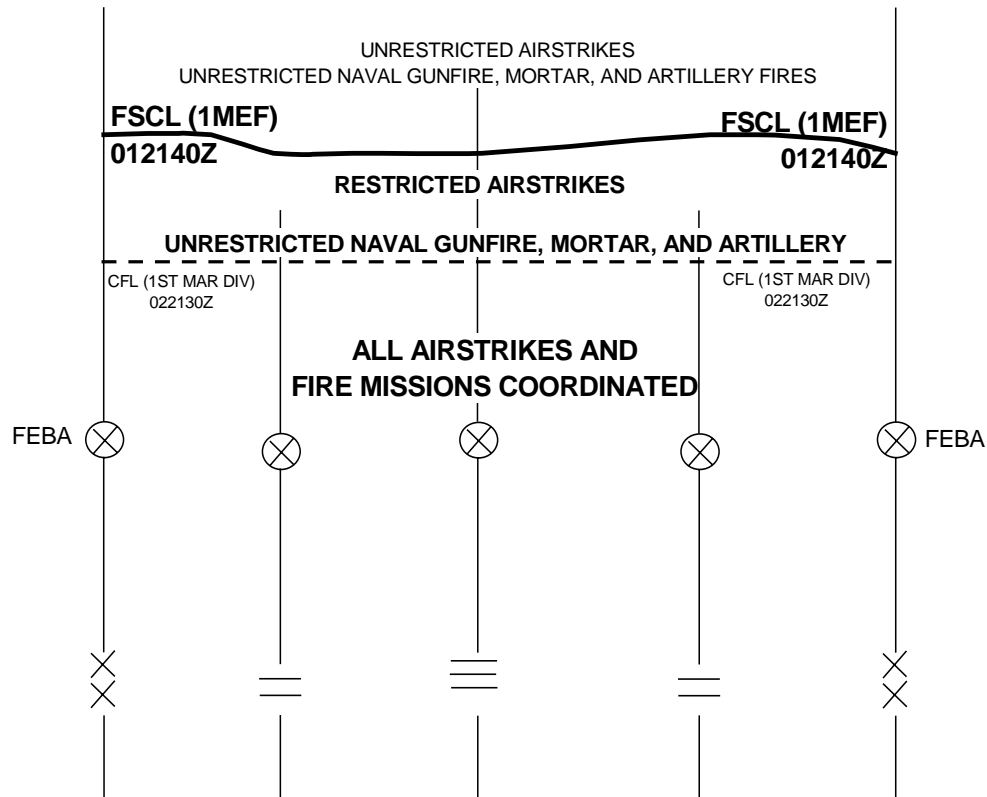
PRACTICE EXERCISE V-2

1. The _____ is the establishing authority for an FSCL.

2. Targets beyond the FSCL may not be engaged without prior approval from the ground force commander.

TRUE   FALSE

3. Depict an FSCL established by 1st MEB at 031430ZJAN98.
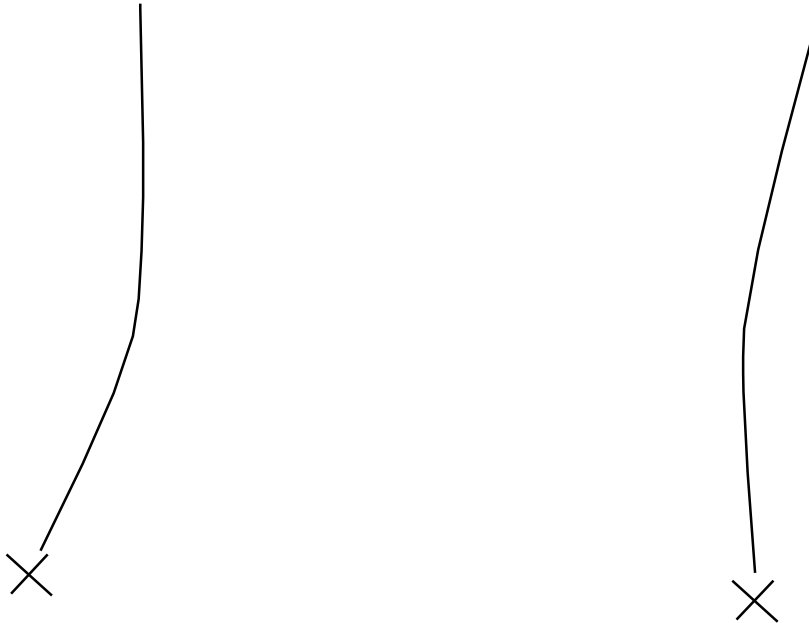
DISCUSSION V-2

1. The MAGTF commander is the establishing authority for an FSCL.

2. FALSE. All targets beyond the FSCL may be engaged by any fire support means without prior coordination.

3. Depict an FSCL established by 1st MEB at 031430ZJAN98.

FSCL(1MEB)
031430ZJAN98

FSCL(1MEB)
031430ZJAN98
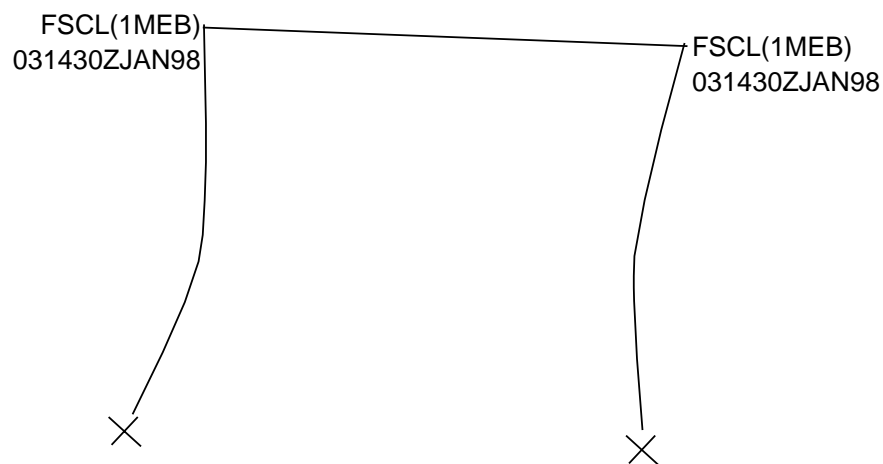
LEARNING ACTIVITY V-B-3

    3. <u>Free Fire Area (FFA)</u>

        a. <u>Definition</u>. An FFA is a specifically designated area into which any weapon system may be fired without any additional coordination from establishing headquarters.

        b. <u>Purpose</u>. The purpose of the FFA is to expedite fire and to facilitate the jettison of CAS munitions if the aircraft is unable to drop on the target.

        c. <u>Establishing Authority</u>. An FFA may be established only by the military or civilian commander with jurisdiction over the area. If a Marine commander determines a need for an FFA, he must forward his request to the approving official through the MAGTF commander.

        d. <u>Location</u>. The FFA should be easily identifiable from the air; however, it may be designated by grid coordinates.

        e. <u>Graphic Portrayal</u>. The FFA is enclosed by black lines. The words "free fire area" or the letters "FFA" are written inside the circumscribed area. The establishing headquarters may be identified as part of the graphic portrayal.

FREE-FIRE
AREA

051200-071200
III MEF

FREE-FIRE
AREA

051200-071200
III MEF
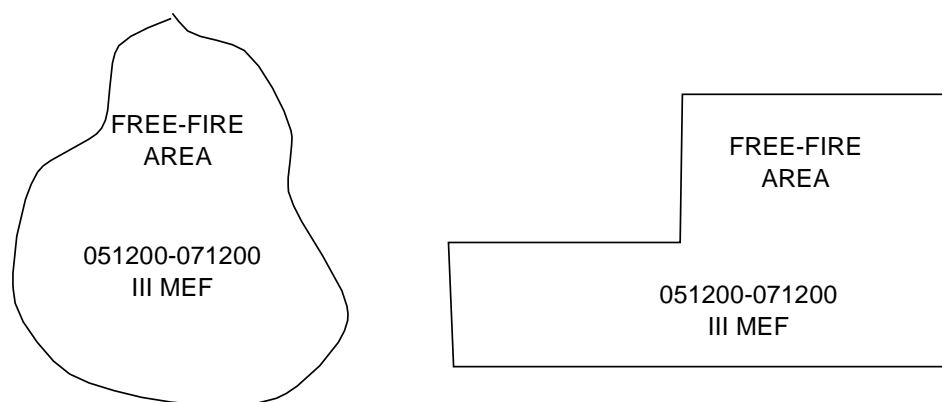
Free Fire Area

PRACTICE EXERCISE V-3

1. The purpose of the FFA is to _____ and to
—_____.

2. The approving authority for an FFA is the _____.

3. Depict a free fire area established by II MEF at 131330Z-292400ZAUG90.

DISCUSSION V-3

1. The purpose of the FFA is to <u>expedite fire</u> and to <u>facilitate the jettison of CAS munitions</u>.

2. The approving authority for an FFA is the <u>MAGTF commander</u>.

3. Depict a free fire area established by II MEF at 131330Z-292400ZAUG90.

II MEF
FREE FIRE AREA
131330-292400ZAUG98

LEARNING ACTIVITY V-B-4

    <u>Restrictive</u>

       4. <u>Restrictive Fire Area (RFA)</u>

          a. <u>Definition</u>. An RFA is an area in which specific firing restrictions are imposed and into which fires that exceed those restrictions will not be delivered without coordination with the establishing headquarters.

          b. <u>Purpose</u>. The purpose of the RFA is to regulate fires into an area according to the stated restrictions. This means that fires can be controlled in an area where troops are located or that certain types of ordnance can be controlled in an area where troops will be moving (e.g., limitations on ICM or FASCAM).

          c. <u>Establishing Authority</u>. An RFA may be established by any combat unit commander within his own zone; however, it is not normally established below battalion level.

          d. <u>Location</u>. An RFA may be on recognizable terrain, expressed by grid coordinates or by radius from a point.

          e. <u>Graphic Portrayal</u>. A restrictive fire area is portrayed in black with the words "restrictive fire area" or the letters "RFA", the designation of the unit establishing the area, any special instructions, and the date-time group of commencement and termination of the RFA written inside the area. The RFA is depicted as a circle with its radius extending at least 500 meters from the center.

161400-181500Z
RESTRICTIVE FIRE AREA
NO ICM SHELS
3/1

Restrictive Fire Area (RFA)

PRACTICE EXERCISE V-4

1. The restrictive fire area is a _____ fire
control measure and is depicted in _____ .

2. To determine what restrictions have been placed on fires into an
RFA, one must contact the RFAs _____ .

3. Depict an RFA established by 1/1 from 151600Z-161600ZOCT90.

DISCUSSION V-4

1. The restrictive fire area is a <u>restrictive</u> fire control measure and is depicted in <u>black</u>.

2. To determine what restrictions have been placed on fires into an RFA, one must contact the RFA's <u>establishing headquarters</u>.

3. Depict an RFA established by 1/1 from 151600Z-161600ZOCT90.

RFA
1/1
151600-161600ZOCT98
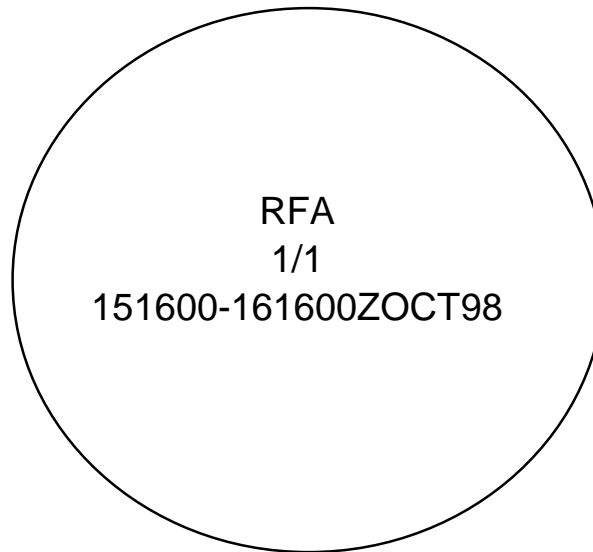
5. No Fire Area (NFA)

a. Definition. An NFA is an area into which no fires or effects of fire are allowed. Two exceptions are when the establishing headquarters approves fires temporarily within the NFA on a mission-by-mission basis, or when an enemy force within the NFA engages a friendly force. If, in the opinion of the senior man on the scene, there is no time for coordination, the enemy may be engaged.

b. Purpose. The purpose of the NFA is to prohibit fires or their effect in the area, normally to protect civilians.

c. Establishing Authority. Typically, the host country establishes NFAs. On arrival of military forces, the force commander coordinates location of NFAs with local authorities.

d. Location. Normally NFAs are on recognizable terrain, but their location may also be expressed by grid coordinates or by radius in meters from a center point.

e. Graphic Portrayal. An NFA is graphically portrayed in black with black diagonal lines drawn through the enclosed area. The words "no fire area" or letters "NFA" are written inside the circumscribed area, along with the effective date-time group for commencement and termination. The area should also be identified by the designation of the headquarters that established the area. Normally, a circle with at least a 500-meter radius.

No Fire Area (NFA)

173
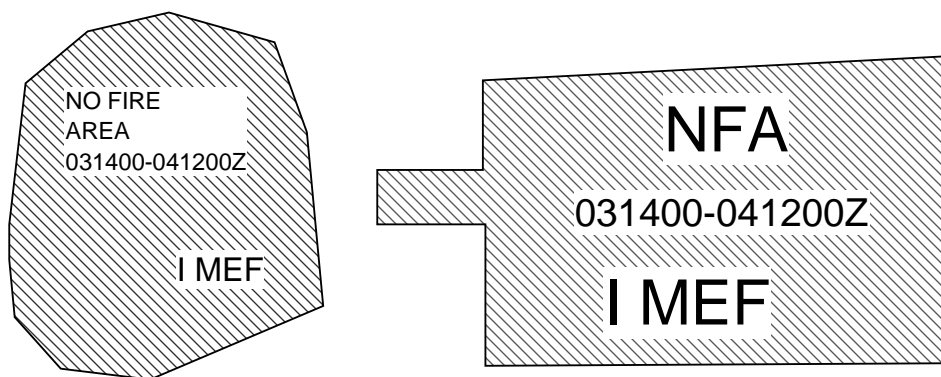
PRACTICE EXERCISE V-5

1. A no fire area (NFA) is a _____ fire control measure.

2. Under no circumstances can fires or the effects of fires be allowed in the no fire area.

TRUE   FALSE

3. Depict a II MEF no fire area effective 090600Z-100600ZMAR90.

DISCUSSION V-5

1. A no fire area (NFA) is a <u>restrictive</u> fire control measure.

2. FALSE. Fires can be allowed in the no fire area when (1) establishing headquarters approves fires temporarily within the NFA on a mission basis, and (2) when the enemy force within the NFA engages a friendly force, the commander may engage the enemy to defend his force.

3. Depict a II MEF no fire area effective 090600Z-100600ZMAR98.

NO FIRE
AREA
090600-100600ZMAR98

II MEF
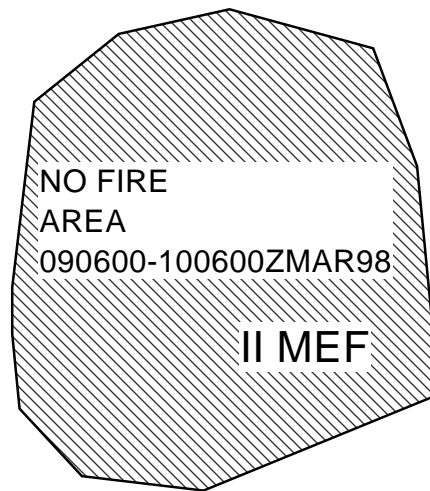
LEARNING ACTIVITY V-B-6

    6. Restricted Fire Line (RFL)

        a. Definition. An RFL is a line established between
converging friendly forces (one or both may be moving) that
prohibits fires, or effects from fires, across the line without
coordination with the affected force.

        b. Purpose. The purpose of an RFL is to prevent
interference between converging friendly forces.

        c. Establishing Authority. The common commander of the
converging forces establishes the RFL. He may delegate establishing
authority to the senior commander of the two converging forces or to
the commander of the maneuvering force in a linkup operation between
a moving and stationary force.

        d. Location. To provide for recognition, the RFL
should be located on identifiable terrain. In linkup operations,
the RFL is moved as close as possible to the stationary force to
allow maximum freedom of action for the maneuver and fire support of
the linkup force.

        e. Graphic Portrayal. The location of the RFL is
graphically portrayed by a solid black line with the letters "RFL"
followed by the name of the establishing headquarters in parentheses
above the line. The effective date-time group is written below the
line.
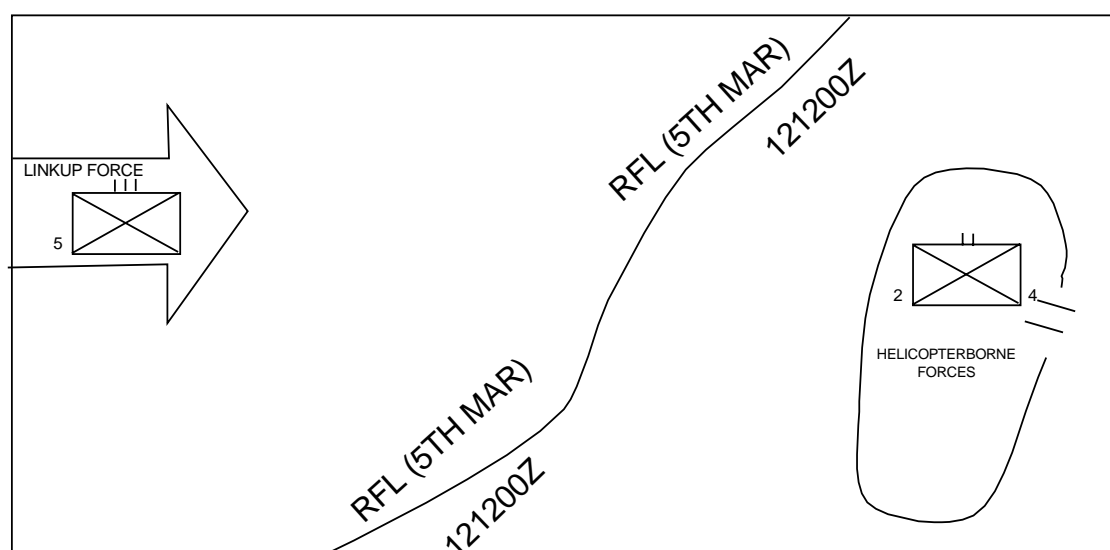
Restricted Fire Line (RFL)

PRACTICE EXERCISE V-6

1. The restricted fire line (RFL) is established on clearly
identifiable terrain.

TRUE   FALSE

2. At what level can an RFA be established?

3. Depict an RFL established by 3d Marines, and which is effective
as of 120630ZFEB89.

DISCUSSION V-6

1. TRUE. As with the vast majority of tactical control measures, the restricted fire line is established on clearly identifiable terrain. If the forces on the ground cannot pick out the tactical control measures from the terrain, the measures are useless.

2. An RFA can be established by any commander, although it is usually not done below the battalion level.

3. Depict an RFL established by 3d Marines, and which is effective as of 120630ZFEB98.

RFL (3d MAR)
120630ZFEB98

RFL (3d MAR)
120630ZFEB98

LEARNING ACTIVITY V-B-7

      7.   Airspace Coordination Area (ACA)

          a.   Definition. An ACA is a three-dimensional block of airspace in which friendly aircraft are reasonably safe from friendly surface fires.

          b.   Purpose. The purpose of an ACA is to act as a safety measure for friendly aircraft while allowing the other supporting arms to continue to fire in support of the maneuver force.

          c.   Establishing Authority. The commander of the unit requesting air support will decide whether or not to employ an ACA based on the recommendations of his FSC. Normally, guidance will have been provided by the MAGTF commander regarding the degree of risk to aircraft from friendly fires which is acceptable and what conditions, if any, would permit disregard of that risk.

          d.   Location. The ACA is located above the target area and includes the path of the aircraft to and from the target.

          e.   Size and Shape. The simplest ACA is a three-dimensional corridor of airspace delineated by a minimum and maximum altitude, length (expressed by two coordinate points) and width from either side of the lines connecting those points. The picture in the graphic portrayal below shows a rectangular ACA; however, an ACA can be of any size and shape. Its size and shape are dictated by such factors as the type of aircraft and the type of ordnance being delivered. We can also establish an informal ACA. This is usually done when time is critical. For example, keeping aircraft and supporting arms on opposite sides of a river.

          f.   Graphic Portrayal

```
ACA BOZO
I MEF
MIN ALT: 300
MAX ALT: 300
GRIDS NK2314 TO NK3013 TO
NK2320 TONK3022
EFF:080800-08100Z
```

PRACTICE EXERCISE V-7

1. The purpose of the airspace coordination area (ACA) is to provide an area in which _____ can safely operate.

2. Depict a formal ACA named GONZO, established by the 1st MEB, min alt: 400 feet m.s.l., max alt: 2300 feet m.s.l., effective 071400-071800ZJUL98.

DISCUSSION V-7

1. The purpose of the airspace coordination area (ACA) is to provide an area in which <u>aircraft</u> can safely operate.

2. Depict a formal ACA named GONZO, established by the 1st MEB, min alt: 400 feet m.s.l., max alt: 2300 feet m.s.l., effective 071400-071800ZJUL98.

```
┌─────────────────────────────────────┐
│                                       │
│   ACA GONZO                           │
│   I MEB                               │
│   MIN ALT: 400                        │
│   MAX ALT: 2300                       │
│   EFF:071400-071800ZJUL 98            │
│                                       │
└─────────────────────────────────────┘
```

8. <u>Targets</u>. The basic criterion used in any discussion of supporting fires is the target. The term "target" is used to indicate an area or point designated for attack by fire. Targets are numbered for future reference in accordance with the ABCA target numbering system.

a. <u>Point Target/Standard Target/Target Reference Point</u>. The primary map and chart symbol used for depicting targets is the cross or tick mark. The tick mark indicates the location of the center of the target area.
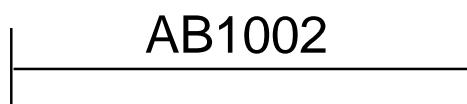
<u>Example</u>:

AB1001
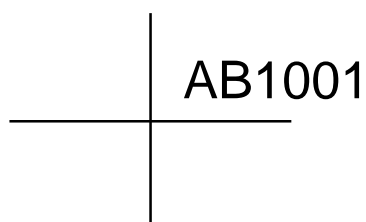
Targets of unusual size or shape may be marked by using special symbols.

b. <u>Linear Target</u>. Linear targets are used to fully cover a wide or long target. The long axis of the target is covered by the line. Linear targets are numbered like point targets.

<u>Example</u>:

AB1002

c. <u>Area Targets</u>. Area targets may be rectangular, circular, or irregular, but must be limited in size; otherwise, they are more appropriately assigned a group of targets.

<u>Example</u>:

AB1003
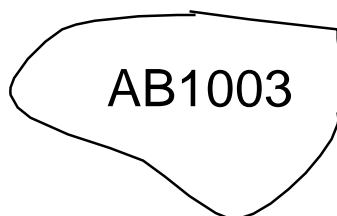
9. Multiple Targets. Fire planners must have a means of depicting and planning fires upon arrays of targets. The two principal techniques used are the group and series of targets.

a. Group of Targets. A group of targets consists of two or more targets on which fire is to be delivered simultaneously. It is identified by circling the targets within the group and identifying them with an alphanumeric code in accordance with the Marine Corps Fire Support System (MCFSS) naming conventions. The fire planner seeing a need for a group of targets, will request that a group be planned by the appropriate fire support agency. The fact that a group of targets has been designated does not preclude the separate attack of individual targets within the group. Normally, the number of targets planned in a group cannot exceed the number of assets available to fire.

Example:
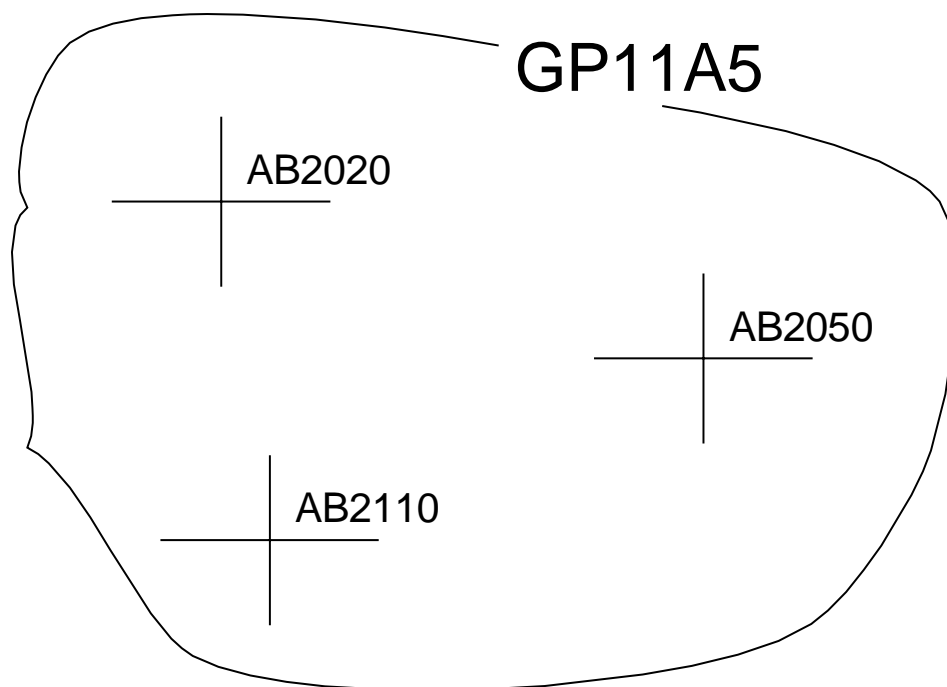
　　　　　b.　Series of Targets.　A series of targets is a number
of targets and/or groups of targets planned to support a particular
maneuver phase.　A series might be designated to support a limited
attack, a final assault, or a counterattack.　It may be initiated
on-call, at a specified time, or when a particular event occurs.
Once initiated, targets and groups of targets within the series are
usually fired on a predetermined time schedule.　Series of targets
are identified by circling the targets within the series and
identifying them with an alphanumeric code in accordance with the
MCFSS naming conventions.

　　　　　Example:

SE11A5

AB2020

AB2050

AB110

GP21A5
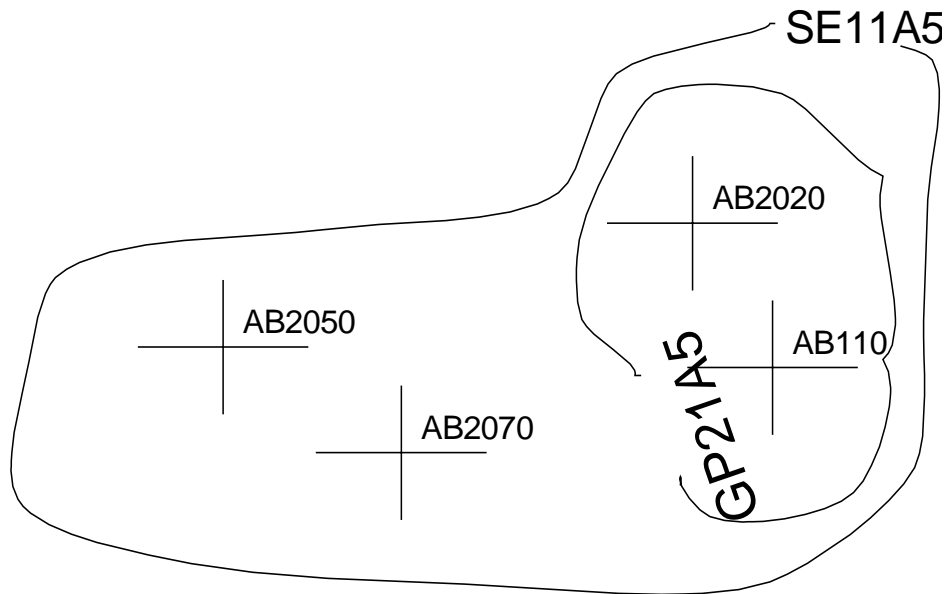
AB2070

     10. <u>Final Protective Fire (FPF)</u>

       a. Final protective fire is an immediately available prearranged barrier of fire designed to protect friendly troops or installations by impeding the movement of the enemy across defensive lines.

       b. An FPF is represented on a map, overlay, or firing chart by a linear target symbol. The length of the plot depends on the type of unit assigned to fire. The 105mm Howitzer Battery FPF is 240 meters wide, and the 155mm Howitzer Battery FPF is 300 meters wide. The depth of an FPF is not fixed, but will depend on such factors as the bursting diameter of the round, the range dispersion, and the howitzer unit formation. If absolutely necessary, the shape of the pattern may be varied to fit the tactical situation. The extensive range errors inherent in naval gunfire and the relatively short over-target stay time of close air support also prohibit the use of these weapons for FPFs.

       c. FPFs are similar in appearance to linear targets, but identified by firing unit on maneuver unit overlays, by target number on fire support overlays.

     <u>Example</u>:

<div align="center">

AB3012

FPF

A/12

</div>

PRACTICE EXERCISE V-8

1. Depict a point target (target no. AN3002).

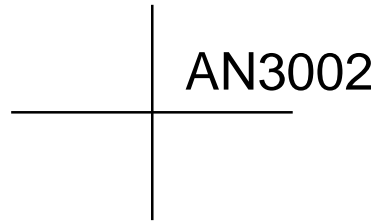2. Targets are numbered by the _____ numbering system.

3. Final protective fires (FPF) are identified by _____ on maneuver unit plots.

4. The length of the plot for an FPF depends on the firing unit's weapons.

TRUE   FALSE

DISCUSSION V-8

1. Depict a point target (target no. AN3002).

AN3002


2. Targets are numbered by the <u>ABCA</u> numbering system.

3. Final protective fires (FPF) are identified by <u>firing units</u> on maneuver unit plots.

4. TRUE. The length of the plot for an FPF depends on the firing unit's weapons.

        11. Direction of Fire. Direction of fire is always
represented by a solid arrow. The weapon symbol is placed midway
along the shaft of the arrow in order to avoid confusion with
similar weapon symbols, often combined with sector of fire symbols.
A principal direction of fire (PDF) is assigned to crew-served
weapons in the defense when no final protective line can be
assigned.

        Example:

DIRECTION OF FIRE

PDF WITH SECTORS OF FIRE
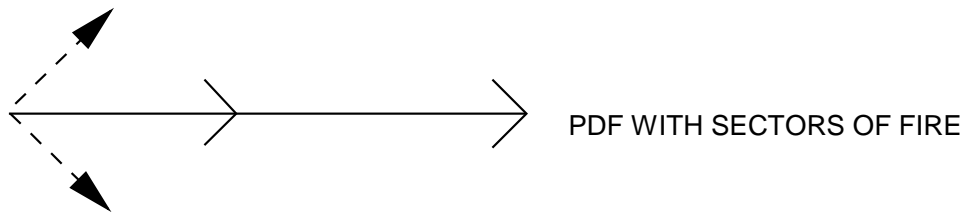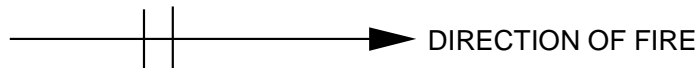
LEARNING ACTIVITY V-B-12

12. Final Protective Line (FPL). An FPL is a modified
direction of fire line that designates grazing fire with heavy
shading and dead space with open spaces between shaded areas. The
FPL is one of the lateral limits of fire and the other limit is
denoted like other sectors of fire. If more than one weapon is
assigned the same FPL, the number of weapons is noted within the
angle of the sector of fire.

Example: